AN

INQUIRY

Serfojee Rajah 1809

INTO THE

STATE OF MEDICINE,

ON THE PRINCIPLES OF

INDUCTIVE PHILOSOPHY.

WITH AN

APPENDIX,

CONTAINING

PRACTICAL CASES and OBSERVATIONS.

THE SECOND EDITION.

BY ROBERT JONES, M.D.

The Sciences and Arts are created by the discovery of general facts in Nature.

Parties have contended for speculative opinions, not for discoveries or useful knowledge.

Professor BRUCE's *First Principles of Philosophy*.

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M.DCC.LXXXIV.

TO

DR. BROWN.

SIR,

Your enemies may oppose, disparage, and do their utmost to decry, yourself and your doctrine. But the nature of truth is such, that it needs only to be known, to beget conviction. The application of this to you is, That you have made a great and useful discovery; and which only wants time, and the exercise of your talents, to render it as universal, as it is important.

I am,

SIR,

With profound Esteem,

Your most obedient,

humble Servant,

LONDON, May 1, 1784.

R. JONES.

PREFACE.

IT has been an obſervation from time immemorial, That the arts and ſciences, which have had a reference to the wants of mankind, have been more rapid in their progreſs, than thoſe that have had pleaſure ſolely for their object. The uſeful and mechanical arts were ſolely ſtudied for the purpoſes of life. Hence Aſtronomy was firſt of all applied, as a rude art, to the purpoſes of agriculture; and Geometry limited to the menſuration of land. For the periodical overflowings of the Nile rendered it difficult, if not altogether impracticable, to diſcover the preciſe limits of each individual's property contiguous to this river. Hence, therefore, this art aroſe. The ſame cauſe ſtill operated, as may be diſcovered from the further progreſs of the effect; ſince we find this ſcience making more rapid advances in improvement than any other.

Few arts or ſciences, if we eſtimate

 them

them by their ſubſerviency to error, have in this reſpect kept pace with medicine. Some have gradually ariſen from rudeneſs to refinement; the emancipation of others, from the chains of error and fruitleſs inquiry, has been as ſpeedy; while the progreſs of others was equally ſlow with that of Medicine. But we are authoriſed in obſerving, that there exiſt no departments of human knowledge, where the wants of men are ſo clearly marked, in point of error, equal to that of Medicine. Its moſt celebrated cultivators aſſert it to be a conjectural art; conſequently little enriched by ſcience. An attempt, therefore, to apply to it the principles of philoſophy, in order to confer upon it the character of Science, and to reſcue it from the frivolity and pedantry, under which it hitherto has groaned, ſurely merits ſome candour: and phyſicians, with all deference to their character, may be taught by the philoſophers, who have diſcovered the laws of nature in other ſciences. If they cannot adopt their leſſons, they may adopt their method of diſcovery. Chance

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may do for graduates what it did for the discoverers of the magnet, gun-powder, gravitation, &c.: But if graduates are to be only believers, bigots, or, to use the phrase, Tories in medicine, by a blind attachment, or passive obedience, to systems; in that case, we must give up all hope, that the healing art will have its science to simplify and explain it.

Philosophy we must admit to be equally required in medicine as in the other sciences. And, as we propose to illustrate a discovery, not universally known, but to which we may boldly assign a place among those which are to last for ages, upon the principles which it holds forth, we need no additional argument for the task we have engaged in.

The arts and sciences, we shall hereafter have occasion to observe, have been found to be considerably affected by the spirit of political laws. In free states, they are cherished; in despotic ones, they languish: notwithstanding which, they are, as if in the course of nature, found to be progressive. This is a truth exemplified

in the progreſs of political and municipal laws—in the fine as well as the mechanical arts—in the ſciences and liberal arts.

There are, however, ſome departments of knowledge which keep pace with our profeſſion, viz. That which hath a reference to intelligence, and that which relates to the human will.

Phyſics alſo, till improved by that ſect of philoſophers denominated the *modern ecclectic ſect*, was a ſubject of ſimilar inaccuracy. The former ſciences, however, have their apology; their natural hiſtory being but imperfectly delineated. Hence inductions, in intellectual and moral ſubjects, derive their incompleteneſs; and hence the difference between the certainty in morals and in phyſics.

In the latter, the analyſis or natural hiſtory is complete; but that of the former is to begin.

Till the ſcience of quantity was applied in its mixed aſpect to the menſuration of material phænomena, mechanical philoſophy was very imperfect. We are in-

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debted to Des Cartes for this important hint; and the discoveries of Newton, assisted by it and the lessons of Bacon, evince its importance.

These remarks afford a brief solution for the causes productive of the stationary appearance of these sciences. But, if we consider attentively the profession of medicine, no well grounded apology can be offered for its present imperfect condition.

The doctrine of the human body is a branch of nature as susceptible of observation and experiment, as any department of it. We can observe it in its state of infancy, manhood, and old age; each of these states afford correspondent phænomena in the functions of the body, as well as in the faculties of the mind; there is a regular progression in each. The child can remember, abstract, imagine, reason, judge. The functions of the body discover a perfect correspondence in the regularity of their progression. At first they are weak and feeble, like those of the mind; they gradually mature; they

then for ſome time remain ſtationary; they next retreat with an equal pace back to their original impotence; till, like the autumnal leaf, they wither and periſh. At this period, memory is found firſt to forſake man.

This is the progreſs of human nature.

Each of theſe phænomena ſuggeſt important hints for reflection, and lead to great and manly views of nature; as they inſtill into the mind of its obſerver, ſeveral uſeful precepts; at leaſt one important reflection follows, viz. That nature's laws are uniform and univerſal.

Our wonder, that medicine ſhould ſtill remain in the condition of a rude art, in ſome reſpect ceaſes, when it is conſidered, that the principles of ſophiſtry have been adopted and applied to it from the earlieſt times.

At one period, it is applied under the enſnaring aſpect of ſophiſtry in ſcience; at another time, under the leſs ſeducing appearance of ſophiſtry in argument. The ſpaſmodic doctrine is an example of the for-

former, the Boerhaavian opinions, and the unnatural aſſumptions prevailing in ſyſtems of the Materia Medica, of the latter. A ſolution to the paradox is therefore unfolded, when we find the method of ſcience and argument applied to eſtabliſh what is uncertain or falſe.

It may be urged againſt this aſſertion, that the method inculcated by Bacon and Newton, is adopted by a part of the profeſſion, viz. the chemiſts and phyſiologiſts. Granting its truth, we would aſk what benefit is expected to accrue to the art of preſerving health and curing diſeaſe, when mens attentions are engaged in the ridiculous occupation of diſcovering the number of coats in an inteſtine, the preciſe ſituation and uſe of a burſa mucoſa, or in the prepoſterous and truly romatic belief, that the animal, vegetable, and mineral kingdoms, are compoſed of nerves?

An equal ſolicitude is obſerved by others in order to diſcover the conſtituent parts of the ſerum, gluten, and red globules of the blood; and premiums, forſooth, are given

given to the ſucceſsful actors of this ſpecies of the drama.

That ſuch inquiries as theſe would add ſome degree of dignity to the deſcriptions and remarks of a Sancho Pancha, we admit; but that they ſhould lead us to ſtumble on any truth beneficial to mankind, is altogether ideal and abſurd.

"So that it is no wonder if noble and "worthy inventions, ſuitable to the dignity of mankind, are not brought to "light; whilſt men content and pleaſe "themſelves with ſuch ſlender and childiſh performances, and at the ſame time "imagine that they perform great matters "by them. But the ſciences have been "much more hurt by puſillanimity, and "the ſlenderneſs of the taſks which men "have propoſed to themſelves; and yet, to "enhance the miſchief, this puſillanimity "is not without its pride and diſdain." But the admiration which theſe leſſons and employments create, though ſimple and childiſh in themſelves, "has been increaſed by the craft and artifice of ſuch "as treat and deliver the ſciences; who

"pro-

"propose them with that state and affectation, or so finely fashioned, and bring them so dressed upon the stage, as if they were perfect in every part, and so many finished things. For, to look at the methods and divisions of these teachers, they might seem to contain and include every thing that can fall within the subject. And though the parts are ill filled up, and in reality little more than empty carcases; yet they pass currently among the vulgar as having the form and fulness of complete sciences.

"Another great reason of the slow progress of the sciences is this; That it is impossible to proceed well in a course where the end is not rightly fixed and defined. Now, the true and genuine end of the sciences is no other than to enrich human life with new inventions and new powers: But much the greater number of the sciences produce nothing of this kind, being mere hirelings, and professorial; unless sometimes, by accident, an ingenious artificer, through de-

"fire of glory, endeavours after some new "invention; which he generally pursues "to his own loss: Whilst the bulk of man-"kind are so far from proposing to enlarge "the mass of arts and sciences, that they "only take from the present collection, "or covet so much as they can convert to "the use of their profession, their own "advantage, reputation, or some such "narrow and inferior purpose. There-"fore, since the end of the sciences has "not hitherto been well fixed and defined "by any one, we need not wonder if "men have erred and wandered in the "things subservient to the proper end *."

All this applies to our subject with the greatest exactness. For nobody will hesitate in pronouncing, that physicians have contented themselves with small performances, nay, that they have always lost sight of the proper end of their profession, the following detail will probably evince. The plan we have chalked out is conformable, in some measure, to that pointed out by Lord Bacon. And the maxims displayed

* Nov. Org. Scient. Bac.

displayed throughout this work will, I expect, be not very remote from his lessons.

Independent of the application of his principles to the profession, we have examined its different aspects by his rules, and found none in the least grounded on them, unless that which we have entered into a full discussion of, and which we hope will be displayed to the reader in the most simple and natural form.

I cannot however, with propriety, conclude this prefatory part without acknowledging my obligations to Professors Bruce and Robison for the advantages I have received from their valuable lessons in the study of nature; and at the same time adopting the language of Lord Bacon, whose philosophy they have applied to their particular sciences, and which I have so studiously adhered to:

"And now we have only this request "to make, that as we have bestowed "much thought and care, not only that "what we offer should be true, but also, "as much as possible, that it should be "accessible

"accessible to the human mind, though
"strangely beset and prepossessed; we in-
"treat it, as a piece of justice at the hands
"of mankind, if they would judge of
"any thing we deliver, either from their
"own sense, the cloud of authorities, or
"the forms of demonstration, which now
"prevail as so many *judicial laws*; that
"they do it not on a sudden and with-
"out attention, but first master the sub-
"ject, by degrees make trial of the way
"we chalk out, and accustom themselves
"to that subtlety of things implanted in
"experience; and lastly, that, by due and
"seasonable perseverance, they correct the
"ill habits that closely adhere to the
"mind. And when thus they begin to
"be themselves, let them use their judge-
"ment, and welcome *.

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* Nov. Org. Scient. Bac.

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AN

INQUIRY

INTO THE STATE OF

MEDICINE.

CHAP. I.

An Inquiry into the Causes which have retarded the PROGRESS *of* MEDICINE.

IF we were inclined to take a ſurvey of the progreſs of human knowledge from the earlieſt times to the revival of learning in Europe, we could diſcover in the mind of man an impatience and inattention to particulars, and a ſingular propenſity to decide from the moſt imperfect obſervation of nature. The truth of this remark might be evinced by an examination of all the ſubjects which have occaſionally ſolicited his notice; whether of primary or ſecondary conſideration, of a civil or religious nature, reſpecting ſcience or art, ſubjects of curioſity or of taſte.

A brief review of the progrefs of man in his civil and literary capacity during this interval, will exemplify and illuftrate our meaning. In his religion, even his character would difcover to us his belief in oracles and divination, and in a plurality of divinities. The theifm even of the philofophers will be found to be remarkably blended with fuperftition.

If we were at leifure to furvey the progrefs of his literary hiftory, we might difcover his faculties engaged in very fruitlefs refearches: the fciences would be confined to cofmogony, aftrology, magic, and conjectural aftronomy; and literature would affume the myftical form of hieroglyphics and a limited ufe of written characters.

The defects in the political and civil laws of this period, would difcover in fome meafure an approximation to the natural progrefs of man; their different afpects would be the refult of neceffity, not of arbitrary eftablifhment.

The former would obferve a progreffion conformable to the following fteps.

Chiefship is created in times of danger and alarm; and the chief, during the period of commotion, obtains a temporary pre-eminence, but is fubjected to the controll of a council of elders. His authority eventually becomes transferred to times of peace. The next form it affumes is, its

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continuation for life, and its becoming hereditary. This is the progreſs of political law.

Municipal laws would be ſubſervient to the following ſketch.

Its firſt aſpect is under the form of uſages; then, moral precepts; next, written laws; laſtly, municipal inſtitutions *.

From this ſcene our attention is inſenſibly transferred to obſerve the numerous ſects into which philoſophy branched: and our curioſity is ſoon gratified by obſerving it divided into two ſects; the Ionic ſchool, or ſchool of Socrates; and Italic ſchool, or that of Pythagoras.

Our next ſtep would be to examine the ſtate of ethics, natural philoſophy, and logic, as taught by theſe philoſophers; and the reſult of it would be this, that they were involved in perfect obſcurity. This, we ſhould diſcover, was not peculiar to them alone; for all the liberal arts, and medicine among the reſt, were in a ſimilar predicament. A further attention would inform us, that moſt, if not all, the hypotheſes in medicine, were chiefly tranſcripts from the ſplendid whims of the prevailing philoſophy.

Notwithſtanding this alliance between phyſicians and philoſophers during theſe periods, nothing is more certain, than that, ſince the revival of learning in Europe, this ſtate of coaleſcence

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* Bruce's Firſt Principles of Philoſophy.

by no means obtains: ſo that a perſon would be inclined to diſbelieve that a Bacon and a Newton, thoſe great enlightners of human reaſon, had ever exiſted; as no evidence can be adduced of our having profited by their rules in many of the ſciences. For, it can be proved, that the medical profeſſion remains in the condition of an art deprived of its ſcience to analize and improve it; as we cannot perceive the moſt faint appearance of the inductive philoſophy of Bacon applied for that purpoſe, or Sir Iſaac Newton's axioms of natural philoſophy, which can be ſhewn to be univerſal axioms of nature.

We need not then wonder, that the moſt complete uncertainty as to the nature of the majority of the diſeaſes which affect mankind, (viz. aſthenic diſeaſes), is the characteriſtic of our art; when the only engines in ſcience, the ſole inſtruments in diſcovery, are neglected; and while phyſicians, as if conſcious of mental impotence, meanly ſkulk behind the ſhield of Sydenham, as the ſtandard of ultimate appeal *.

• It need not be mentioned, that Sydenham's knowledge of diſeaſes centered in thoſe of a phlogiſtic nature only, and that his only plan of cure was the antiphlogiſtic. We ſhall not at preſent examine the comparative merits of the alexipharmac or phlogiſtic pathology; nor dwell upon the

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* Brown's El. Med. p. 115, to 117.

pernicious conſequences of the latter, in the hands of different framers of medical hypotheſes: we ſhall refer that to a ſubſequent part.

The reformation in philoſophy brought about by the great Bacon hath been remarkably fortunate in improving all the arts and ſciences to which it has been applied: "Thoſe ſciences to "which it has not been applied remain ſubjected "to hypotheſis and ſyſtem *." This is the preciſe condition of medicine, ſo that it can be demonſtrated, that the method of philoſophical analyſis, arrangement, evidence, and induction, have not hitherto been applied to it. Hence the fallacious nature of medical facts, the impure ſource of evidence, the artificial arrangement of diſeaſes in noſological ſyſtems, and the falſe inductions which pervade and corrupt the profeſſion.

Even at the end of the eighteenth century; a period when all the arts, as referable to ſafety, ſubſiſtence, accommodation, and ornament, are progreſſive; when commerce, from the extenſiveneſs of its intercourſe, is ſo unfavourable to indolence, by flattering the induſtrious with the pleaſing proſpect of a ceſſation from toil and the hopes of eaſe, and by inviting the adventurous to proſpects of independence: At a period when freedom of inquiry obtains in every department of human knowledge, and inductive ſcience

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* Bruce's Firſt Principles of Philoſophy.

hath been found to apply to the different aspects of philosophy; when the modern European nations are making such progressive advances in the refinement of their municipal laws, the laws of war and of nations: At a time when criminal laws are subjected to censure and disapprobation for their irregularity and imperfections, and amendments in them become objects of primary consideration to legislators; when the principles of evidence in civil and criminal cases are subjected to the scrutiny of philosophy: Lastly, at a time when the objects of the art of criticism and belles lettres are beginning to be subjected to the analysis of their proper sciences; yet the art of medicine, like the arts of China and ancient Egypt, assumes a stationary form.

In accounting for this aspect of the healing art, we are insensibly led to account for the stationary or progressive form of all the useful arts, which have always been more or less affected by the spirit of political laws. Thus we find, that making them hereditary in a family, which was customary in the East, was one of the most formidable obstacles to the progress of genius and the improvement of the useful arts. Accordingly, in the empires of Persia and China, and indeed in all the Eastern monarchies, the arts have been found to reach certain degrees of refinement

finement in a short space of time; and then become stationary.

The political laws in Greece had a different tendency; for there all the Eastern restraints were removed, the savages being incorporated with, and instructed by Eastern emigrants: hence the equable diffusion of the arts among this people. But the great error of the Greeks appears to be precisely similar to that which uniformly hath been found to corrupt medicine, viz. in making the study of the sciences and of the arts separate; which was fundamentally mistaking the import of each, as the dependence of the latter upon the former was overlooked: For, " in the sciences, man is " the interpreter of nature; in the arts, he makes " use of the laws of the sciences, as the instru- " ments for the attainment of his ends *." Accordingly we find, that (in many instances) physicians have prosecuted the profession of medicine as mere artists, not as philosophers; because its improvement hath been left, like those of Greece, to the unguided genius of the artist, without the assistance of the philosopher. This truth is evinced by an appeal to the tenets of physic, which are proofs of the inadequate conceptions which physicians entertain of the nature of an art. As the knowledge of facts is indispensable in the creation of a science, so is the

* Bruce's First Principles of Philosophy.

knowledge of the foundations of rules in the practice of a liberal art. "When we obferve "phænomena, and collect facts, we form a hi- "ftory. When we difcover the nature and re- "lations of phænomena and of facts, we acquire "a fcience. When we apply the refult of fcience "as rules of conduct, we practife arts *."

Thefe definitions are the moft comprehenfive of the fubdivifions of human knowledge that I have met with, as they with great perfpicuity and brevity point out the mutual fubferviency of each, and the direct line and connection fubfifting between all.

Inattention, however, to their direct import, hath been the caufe of the greateft mifchief, and hath had the moft pernicious confequences in phyfic. Here refts the foundation of empiricifm; here originates the contempt for reafoning, and for the knowledge of rules or theory. This is the great fountain of error in the profeffion, and the lawful mother of thofe perfidious debafers of human reafon in it, the Dogmatifts and Empirics. The characteriftic of the one, is the adoption of rules, without proper data to eftablifh them; that of the other, is a fingular propenfity to collect facts and obfervations, without making any proper deductions from them. In both, the deviation from the laws of nature is confpicuous; and

* Bruce's Firft Principles of Philofophy.

and in both, inattention to the firſt principles of ſcience, and ignorance of their reſult, prevail.

Phyſicians have uniformly been diſpoſed into theſe two departments of error; though the moſt unqueſtionable proofs have been adduced to demonſtrate, that ſuch a diſpoſition derogates from their characters as obſervers of the laws of nature on which their art can be founded.

The cauſes which have contributed to retard medical improvement, are further legible in thoſe which have retarded the progreſs of the other ſciences and arts.

Lord Bacon has given a very full and particular detail of theſe in his *Novum Organum Scientiarum*. Theſe were the moſt formidable antagoniſts he had to combat with in his great attempt to reſtore human reaſon; and there is nothing prepoſterous in the ſuppoſition that they will always operate in a greater or leſſer degree, for man under ſimilar circumſtances will always be the ſame.

Having taken a retroſpect of the general cauſe which has retarded Philoſophy and Medicine, our attention is unavoidably transferred to obſerve the particular circumſtances which have influenced their progreſſion.

1. Love of ſyſtem, and impatience of delay in the ſtudy of particulars.

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To ſhew the force of this cauſe, the intelligent reader needs no proof from argument; for an appeal to the different aſpects of natural philoſophy previous to the application of inductive ſcience to it, and to the preſent ſtate of that department, is ſufficient.

In the ſame manner, moral ſcience has been acquiring more of the ſpirit of inquiry, though ſtill it is influenced by hypotheſis.

2. The propenſity to account for ultimate facts.

This has been a great ſource of error in every department of philoſophy, but remarkably in medicine.

3. The vain wiſh to demonſtrate why cauſes operate, and not how they operate.

We find, that when Sir Iſaac Newton diſcovered the general fact with reſpect to gravitation, and found that it was an univerſal property in matter to fall to a common centre, he paid the moſt implicit deference to the precepts of philoſophy, which is derived from the obſervation of Nature, and which examines the properties and relations of her works to diſcover the laws which they follow. But when other philoſophers endeavoured to refine upon his diſcovery, by referring the cauſe of this fact to etherial emanations, &c. they loſt ſight of nature altogether.

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However inattentive phyficians have been to the import of this error in philofophy, I may venture to fay, that no fmall part of the errors and endlefs ineffential refinements in phyfic reft upon it. The inceffant labour of accounting for fymptoms, which is as fruitlefs and as endlefs as that of Sifyphus, originates from this fource.

4. The inattention of phyficians to the principles of philofophical analyfis, arrangement, evidence, and induction.

5. An anxiety in phyficians to eftablifh the whims, errors, and opinions, of their refpective teachers, rather than to advance and improve the profeffion.

This is an obfervation verified by an appeal to every age of medicine. It is not, however, an error peculiar to phyficians; for it hath been found to tincture the opinions of moft philofophers, and to miflead and infatuate their judgements. The moralifts and metaphyficians, both ancient and modern, have been wonderfully affiduous in preferving this ftate of ebriety and infatuation.

6. The intermixture of the doctrines of phyficians with the hypothefes of philofophy.

The truth of this remark we find realized in the opinions of Efculapius, whofe chief excellence confifted in applying the principles of the

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Eaſtern philoſophy, eſpecially their magic, to ſolve the phænomena and detect the laws of animal-life.

The next perſonage of diſtinguiſhed name to whom this obſervation applies, is the celebrated Hippocrates, whoſe precepts have been ſuppoſed to be ſupernatural. If the deifiers of this phyſician had but recollected, that his chief excellence conſiſted in borrowing the principles of the Pythagorean phyloſophy; at leaſt in the eſtabliſhment of that falſe and incongruous notion of critical days which have ever ſince peſtered the ſchools of phyſic:—If they had been aware of the ſophiſtical nature of his doctrines with reſpect to the different modifications of diſeaſe; in referring ſome to too great moiſture in the ſyſtem, others to drineſs, heat, and ſo forth; no ſuch penetration ſurely would have been aſſigned to him. If it had been underſtood, that the baſis of practice which hitherto hath been applied to thoſe diſeaſes, that are ſuppoſed to have plethora, mobility, irritation, and a variety of other pernicious tenets, for their cauſes, originated from Hippocrates *, no very extraordinary ſhare of divination would have been perceptible in ſuch an author. A better finiſhing ſtroke to his character cannot poſſibly be deviſed than by borrowing the words ſo happily uſed by the Lord

Bacon.

* Brown's Lectures.

Bacon. " Let Hippocrates" says he " be next
" called to the bar, whom we arraign, 1. As a
" creature patched up of antiquity; and, 2. A
" retailer of other mens' knowledge, under
" whose authority both Galen and Paracelsus ri-
" diculously endeavour to shelter themselves like
" asses under a tree. To do him justice, he
" seems to have had his eyes at first perpetually
" fixed upon experience; but then they are fix-
" ed indeed! stupid and immoveable, without
" ranging and searching for noble, manly, and
" full views: and afterwards, recovering a little
" from this stupidity, he takes in certain idols,
" though not those monstrous ones of theories,
" but such as are more neat, elegant, and fur-
" round the limits of history: and having drank
" these in, he becomes swollen and sophistical;
" and, according to the custom of the age he
" lived in, wraps himself up in brevity: and
" thus, as his followers imagine, utters oracles,
" of which they are ambitious of being thought
" the interpreters; whilst, in reality, he does
" no more than deliver sophistry, by broken,
" short, and interrupted sentences, so as to pre-
" vent confutation; or else, in a haughty man-
" ner, records such observations as are trite,
" vulgar, and known to every rustic *."

The character which next demands our atten-
tion

* Bacon.

tion is Aſclepiades, the creator of the Methodic ſect. It is perhaps unneceſſary to obſerve, that the period in which this phyſician flouriſhed was that in which the Roman people had arrived at their ſummit of refinement and grandeur. At the ſame time, the Epicurean philoſophy was much in vogue among the more faſhionable part of the Romans: and it was a natural conſequence, that a perſon more intent upon making his fortune by humouring the prejudices of the great than in ſtudying nature, ſhould adopt the language of the times, and apply the principles of the Epicurean philoſophy to medicine; which actually was the caſe. In this reſpect he diſcovered a complete reſemblance to the people he was incorporated with; for, let the merit of the Romans be ever ſo great in the arts of war, &c. this is an acknowledged truth, That "their philoſophy had no claims to originality, "but was imperfect tranſcripts of Grecian opi- "nions *."

The phyſician of conſequence next in the liſt is Galen; whoſe ſyſtem, though partaking conſiderably of the opinions and whims of Hippocrates, lays claim for its chief dignity and importance to the principles of the Peripatetic and Eclectic philoſophy which prevailed in his time.

The atoms of Democritus can be diſcovered to

* Profeſſor Bruce's Lectures.

to be revived by the leader of the Chemical and Alexipharmac sect, in explaining the phænomena and laws of the animal-œconomy: And the taste for Mechanical philosophy, in the 16th and 17th centuries, can be perceived to affect the state of medicine in a very remarkable manner. For we can plainly discern a great propensity, among all physicians conversant in the science of geometry, to reconcile the phænomena and laws of the animal-œconomy upon mechanical and hydraulical principles; which appears first to have been suggested by the appearance of angles and lines, similar to mathematical ones, obtaining in the animal-œconomy.

The Boerhaavian opinions with respect to lentor and viscidity, can be traced to the Cartesian philosophy *; and the doctrine of spasm, tho' undeniably proved to be incompatible with truth and irreconcileable to reason †, "appears "to have its origin in a conceit of Van Hel-"mont's ‡."

Besides those dogmatical sectaries which we have mentioned, there have at all times been many in the profession who with-held their assent to the dogmatical principles of their cotemporaries or predecessors. The prosecution of the art in the temples among the ancient Greeks, by

* Cullen's Lect. † Elem. Med. Brun. cii. ad cxvii.

‡ Brown's Lectures.

by recording the ſeveral caſes and cures of diſeaſes treated there by the prieſts, and applying ſimilar remedies to ſimilar caſes, is the firſt inſtance of empiriciſm of which we have any account.

After the dogmatic plan of Hippocrates appeared, and was univerſally received in Greece for the courſe of ſome centuries, it would ſeem, that the efforts of the empirics had been checked, though not ſuppreſſed, by the ſplendour of his ſyſtem. At laſt, however, in the reign of Ptolemy Philadelphus in Egypt, we find empiriciſm profeſſed and avowed. Serapion ſtands forth as the champion in its cauſe. Galen's doctrine, ſuperſeding all others during the decline of the Roman empire, and in Arabic tranſlations preſerved through the dark ages, till, upon the taking of Conſtantinople, it was reſtored to the weſtern part of Europe, was ſo implicitly followed, in conſequence of an univerſal languor in literature and the ſpirit of inquiry, that it obſcured all other ſects, and prevailed over empiriciſm. In the dark ages, however, of the weſtern church, where, with other branches of knowledge, this medical work muſt have been altogether loſt, it is not to be ſuppoſed that they wanted ſome form of phyſic: and the only one that could have occurred is that which naturally ſuggeſts itſelf to a rude people,

viz.

viz. a fort of attempt to cure difeafes from certain inftinctive impreffions and random trials. This is natural phyfic, in which the good women are the principal perfonages of the faculty. And while the chief occupation, in fuch a ftate of fociety, of their hufbands and fons, is war; this oppofite department, of reftoring health and averting death, would be handed down to the daughters, and fo defcend to fucceeding ages. Nor is this natural ftate of phyfic effaced in more enlightened times by the authority and influence of a regular faculty. It prevails at prefent in Britain; and often boafts, and we believe juftly, of making cures where the regular practice had failed. It muft, however, be under lefs control in times of general ignorance; and among a rude people at any time. Accordingly its prefent ftate in the Highlands of Scotland, of Wales, and in the wild parts of Ireland, muft bear a great refemblance, in all its principal features, to the phyfic practifed in the dark ages. From what has been faid, it will appear, that this natural phyfic may be in a more pure or corrupted ftate. In every nation into which an art of phyfic has been introduced, and a regular practice in that art takes the lead; its influence muft in fome meafure, and fometimes, often in a great meafure, extend itfelf to the natural phyfic.

Hence, among the good women, as well as gentlemen of the faculty, vomiting, purging, and bleeding, will be the panacæum. But, in the less contaminated state of natural physic, more dependence will be placed in the use of herbs and certain other productions, and in certain formulæ transmitted from former times, than in the destructive evacuatory powers we have mentioned: And therefore, though we cannot give our testimony for its great efficacy, we are at full liberty to give a declaration in favour of its innocence.

To this account of empiricism we have only to add, that, in the hands of Paracelsus and his successors the chemical practitioners, empiricism again took possession of the schools. The theory of the chemists was too narrow to extend to a full dogmatic plan. They saw its imperfection in principle, and deficiency in application; and they professionally gave themselves up to an inquiry into every thing that experience and observation had found effectual in the cure of diseases. Paracelsus had recourse to the professors of the natural form of medicine. He consulted old women and quacks; and declared he would take a cure from any person, even from the devil.

We next find the discovery of the circulation, and the influence of Boerhaave, giving another

check to natural physic in its pure and genuine state. And the great name of Doctor Sydenham, while his doctrine laid the foundation of dogmatic physic, at least in the practical part, has also, when viewed in a different light, given sanction to empiricism. And it is to a comparison between the efficacy and simplicity of his plan of cure with the complicated indications of the dogmatists in the schools, that the general tendency to empiricism, which distinguishes the practice in England, is owing. Accordingly, what has much contributed to the depreciation of dogmatism, is the prevalence of empiricism among many physicians, and the corrupted natural physic among other persons who do not regularly belong to the profession.

From this selection of leading circumstances it will evidently appear, that the adoption of, and reasonings from, false principles, from the infancy of medicine, as taught in the Esculapian school, to the present times, will sufficiently account for the errors of the sects; and their inattention to and neglect of complete models and processes of inductive inquiry, exemplified sufficiently in the writings of those great ornaments of human nature, Galileo, Torricelli, Pascal, Bacon, and Newton, will account for their subsequent wanderings from the laws of nature, and the stationary aspect of the profession.

CHAP.

CHAP. II.

Of the Grounds of Hope for the further Advancement of MEDICINE.

THE difficulties of our profeffion, which are manifeft to every perfon the leaft converfant in it; the trivial advantages which have accrued to it from the laborious efforts of medical writers; the endlefs folios which have been written on the diftinctions and cure of difeafe; to which may be added the continual embarraffment and univerfal perplexity attendant on the practice of medicine; fhould have informed us of this melancholy fact, that we are travelling in a wildernefs where there exift but faint glimmerings for extrication, and where the profpect leads to defpair; were it not an "argument of hope, "that fome of the things already difcovered are "fuch as, before their difcovery, did not enter "into mens minds even to fufpect; fo that any "one would have defpifed them as impoffibilities. For it is an ufual way with mankind "to form conjectures of new things according "to the examples of old ones, and according "to the opinion thence preconceived and entertained: which is a very fallacious manner of "judging. For many particulars, derived from "the

" the fountains or origins of things, do not flow
" in the ordinary channels.

" So if a man, before the discovery of ordnance, should have thus described the thing by its effects; viz. that there was a certain way of battering down walls and the strongest fortifications at a great distance, the minds of men would have run upon multiplying the force of their common engines of war, the known battering-rams and machines, by the means of weights, wheels, and other mechanical powers. But scarce any would have suddenly fallen upon the invention of raising a fiery wind, that should blow out of a tube with such prodigious expansive violence, as to produce the above-mentioned effect: an obvious example thereof having never been seen, unless perhaps in earthquakes or thunder-storms; which, as being grand works in nature, men would presently have rejected as inimitable by art.

" So likewise, before the invention of silk, if any one should have said there was a certain way of making a certain cloth for apparel and household-furniture, far exceeding that of linen or of woollen in fineness, strength, gloss, and softness, men would immediately have fallen to conjecturing about some vegetable silk, the finer furs of animals, or the feathers

 and

" and down of birds, without ever dreaming it " ſhould proceed in ſuch plenty from the anni- " verſary ſpinning of a ſmall worm.

" And if any one ſhould have dropped a word " about ſuch a worm, he would certainly have " been laughed at as the projector of a new " ſpider-work.

" So, again, if, before the uſe of the compaſs, " any man had ſaid, that a certain inſtrument " was known for exactly diſcovering the quar- " ters and points of the heavens, mens inven- " tion would hence preſently have run upon a " more exact conſtruction of aſtronomical in- " ſtruments, and various ways of applying them: " But that any thing ſhould be found, the motion " of which had ſuch a correſpondence to the hea- " venly bodies, and yet the thing itſelf no ce- " leſtial, but only a bare terreſtrial, ſtony, or " metallic ſubſtance, would have ſeemed abſo- " lutely incredible. Yet theſe and the like parti- " culars have been hid from mankind for ſo " many ages; and at laſt were not diſcovered " by philoſophy or the rational arts, but by " chance or accident; and are of ſuch a nature " as to appear perfectly foreign and remote from " the things known before, ſo that no previous " notion could any way lead to them.

" Whence there is great room to expect, that " there ſtill remain in the boſom of nature many

" things

" things of excellent uſe, that have no man-
" ner of relation or analogy to the things al-
" ready diſcovered, but lying perfectly out of
" the road of the imagination; and which, tho'
" hitherto unknown, may doubtleſs, through
" numerous revolutions and ſucceſſions of ages,
" be one time or other diſcovered, as thoſe
" above-mentioned have been. But, by the me-
" thod we propoſe, they will more readily and
" ſuddenly be repreſented and anticipated at
" once.

" It may perhaps ſeem incredible to many, that
" there ſhould ſtill remain undiſcovered any conſi-
" derable number of uſeful and beneficial works;
" and, again, ſtranger that they ſhould hereafter be
" diſcovered of a ſudden; and great, to be ſure, will
" be the wonder what theſe particular works can
" be. The direct anſwer is, That as the ignorance
" of mankind has led them into deſpair, ſo know-
" ledge will lead them out of it into the regions
" of hope, or rather of certainty. But who-
" ever duly conſiders it, will not find it ſtrange,
" if our method of interpreting nature prevails,
" that there ſhould, in a ſmall compaſs of time,
" many new and uſeful inventions grow up: for
" the births of knowledge are quick; but the
" births of time are ſlow. And all the noble in-
" ventions at preſent in uſe rather proceeded from
" accident, and random trials, or conjectures,
" than

" than from any previous light of knowledge ;
" whereas the method of diſcovering by induction
" is certain, regular, and direct, without waiting
" for accidental hints and lucky chances. There
" are alſo other inventions of ſuch a kind as to
" ſhew, that men may paſs by and overlook
" noble diſcoveries which lie before their feet.
" For though the invention of gunpowder, ſilk,
" the compaſs, ſugar, paper, &c. may ſeem to
" depend upon certain properties of things
" and of nature; yet, doubtleſs, the art of
" printing contains nothing that is not open, and
" in a manner obvious.

" And in this courſe of invention the mind is
" frequently ſo perverſe, and childiſh, and con-
" tradictory, as firſt to diſtruſt, and preſently after
" to deſpiſe, itſelf: for men firſt conceive it in-
" credible that any ſuch diſcovery ſhould be
" made; but after it is once made, they again
" think it incredible that it was not found out
" before *."

So likewiſe, if a perſon had deſcribed the poſ-
ſibility, nay practicability, of applying the prin-
ciples of inductive philoſophy to an art, which
is wholely acknowledged to be rather the reſult
of conjecture than demonſtration:—If he had
hinted the poſſibility of interpreting the infi-
nitely modified phænomena of health and diſ-
eaſe

* Nov. Organ. Scient. Bacon.

eafe on Sir Ifaac Newton's axioms of natural philofophy, which hath actually been executed; before fuch an event, he would undoubtedly have been confidered as the builder of caftles in the air.

All thefe difcoveries afford grounds for hope; fo that we are fufficiently advanced in our fubject to authorife our adoption of another important precept of Lord Bacon! "'Tis madnefs, "and a contradiction, to expect that things "which were never yet performed, fhould be "effected, except by means hitherto untried *."

The numerous arts which natural philofophy and chemiftry have contributed to perfect, would incline us to this belief, That we have neglected advantages which hitherto have not been explored, and affiftances which a greater attention to fcience and philofophy may contribute to afford.

Will it not be allowed, that the moralift, the ftudent in jurifprudence, and the politician, receive effential benefit from the hiftory of human nature?

Will it not alfo be admitted, that the pneumatologift, the logician, and fpeculative geometrician, receive important advantages from the hiftory of the human underftanding?—Without thefe helps, we can never expect to make any great

* Nov. Org. Scient.

great proficiency in the ſciences which relate to the intellect and will of man.

Would the increments and decrements obtaining in the planetary ſyſtem, have been with any ſort of preciſion aſcertained, had it not been for the aſſiſtance of fluxions, brought to light and foſtered by the matchleſs capacity of a Newton? Without theſe or ſimilar means, what would our underſtanding avail us in the contemplation of this and other ſublime departments of nature? We ſhould very probably, at this very advanced period of ſociety, be revolving in the vortices of Des Cartes, and abſorbed in all the wild aberrations of his imagination, had not this immortal perſonage chalked out a different path for diſcovery, by proper helps and a becoming diffidence in the powers of the underſtanding.

"Neither the hand without inſtruments, nor "the unaſſiſted underſtanding, can do much; "they both require helps to fit them for buſi-"neſs; and as inſtruments of the hand either "ſerve to excite motion or direct it, ſo the in-"ſtruments of the mind either ſuggeſt to, or "guard and preſerve the underſtanding *."

Nothing more ſhould point out to phyſicians the importance of philoſophy than the numerous aſſemblage of errors and miſtakes previouſly noticed,

* Nov. Org. Scient.

ticed, (Chap. I.) If it were only in compliance with the ſingular excellency of the reaſonings of inductive philoſophers; if it were only on account of the aids which the underſtanding receives from the precepts of philoſophy; one would think phyſicians would become philoſophers. For it is an unqueſtionable truth, that the ſagacious obſerver, the accurate reaſoner, and the cautious believer, have always been inductive philoſophers.

If we, on one hand, view the extenſive intercourſe which medicine has with the multifarious phænomena of nature; and, on the other, conſider the relapſe from wonder and ſurpriſe which happens after the contemplation of a new phænomenon has been followed by the diſcovery of the law by which that phænomenon acts; from theſe conſiderations the importance of philoſophy muſt appear in a very clear light.

If it be added, that the moſt complete relief from prejudices, which an acquaintance with the more general operations of nature ſerves to create, is its conſequence; its excellence muſt be eſtimated not in a limited point of view. Further, if we compare the ſubjects of our profeſſion with thoſe of natural philoſophy, we ſhall have additional evidence of the importance of thoſe auxiliaries which contribute to perfect us in intelligence,

telligence, to familiarize us with nature, and to promote the love of truth and inquiry.

It certainly is more proper to premiſe an acquaintance with "natural philoſophy, the pro-" vince of which it is to diſcover the laws, and "explain the phænomena, of the ſenſible mo-" tions of the inſenſible aſſemblages of inanimate "matter, than to ſet out with the ſeveral ſub-" diviſions of the profeſſion of medicine, viz. "phyſiology, chemiſtry, and botanical philoſo-" phy, the province of which is to diſcover the "laws, and explain the phænomena, of the "inſenſible motions or appearances of the ſen-" ſible aſſemblages of inanimate nature *."

It ſurely muſt be admitted, that the human mind ſhould firſt of all be initiated in, and converſant with, the ſubjects which admit of complete perception; before we travel over more intricate paths, where our ſenſes avail us little in obſerving, and perception itſelf is ſo incomplete.

"A ſecond cauſe, ſays Lord Bacon, of very "great moment, is, that through all thoſe ages "wherein men of genius and learning princi-" pally, or even moderately, flouriſhed, the "ſmalleſt part of human induſtry has been ſpent "on natural philoſophy; though this ought to "be eſteemed as the great mother of all the

ſciences:

* Profeſſor Robinſon's Lectures on Natural Philoſophy.

" sciences: for all the rest, if torn from this
" root, may perhaps be polished and formed for
" use, but can receive little increase. But let
" none expect any great promotion of the
" sciences, especially in their effective part, unless
" natural philosophy be drawn out to particular
" sciences; and again, unless these particular
" sciences be brought back to natural philo-
" sophy. From this defect it is that astronomy,
" optics, music, many mechanical arts, medi-
" cine itself, rise but little above their founda-
" tions, and only skim over the surfaces and va-
" rieties of things; because, after these sciences
" are separated and formed, they are no longer
" nourished by natural philosophy, which would
" give them new strength and increase; flowing
" from the causes and genuine consideration of
" motions, light, sounds, the texture and struc-
" ture of bodies, the affections and intellectual
" apprehensions. No wonder, therefore, if
" the sciences thrive not, whilst they are sepa-
" rated from their roots *."

It may be considered as superfluous to insist much on the importance of the first principles of philosophy, or logic, which is defined to be "the science of observing nature †," the source from which the maxims of legitimate induction springs,

* Novum Organ. Scientiarum.

† See Bruce's First Principles of Philosophy.

ſprings, and mathematics as preliminaries to natural philoſophy; as it is obvious to every perſon, that the farmer ſhould have a previous acquaintance with the inſtruments of his profeſſion before any efforts are made to cultivate his ſoil: for the mind, without theſe lights in the proſecution of natural knowledge, may be compared to a "mir-
" ror, the ſurface of which requires levelling and
" poliſhing, in order to be diſcharged of its falſe
" imaginations and perverted notions, before it
" can be ſet to receive and reflect the light of
" truth and juſt information *."

It will, therefore, be ſuperfluous to inſiſt any further on the indiſpenſable neceſſity of ſtudying with diligence that department of knowledge, the province of which is to fulfil the preceding indications; to view man in the light of an intelligent being, and to afford rules for the ſucceſsful conduct and cultivation of his underſtanding.

If this be the province of logic, to guide and direct the intellect of man, and to afford rules for the ſucceſsful contemplation of nature; will it not be granted, that the good conſequences reſulting from ſuch a ſource, would be of very particular advantage in the profeſſion of medicine? where it is incumbent on us, by every tie of duty we owe to ourſelves and our fellow-creatures, to employ every additional auxiliary in its improve-

* Bacon.

improvement, wherever the precepts of ſcience chalk out the path and point to us the means. How fundamentally have phyſicians wandered from the import of theſe precepts! For they have proſecuted that aſpect of nature which hath a reference to their profeſſion, as if it had been a ſtudy *ſui generis*; as if no preparatory, no elementary branch of philoſophy was neceſſary to the ſucceſsful proſecution of ſo intricate a department.

However, we reſt no inconſiderable part of our hope for the advancement of medical philoſophy, on the foregoing elementary ſciences. Which, if ſteadily purſued, will enable us to obſerve the infinitely varied aſpects of life with preciſion and judgment; to reaſon juſtly from theſe appearances, and to apply theſe reaſonings with confidence to the practice of our art. By this mode of proceeding, we ſhall ſtand a fair chance of extirpating thoſe unnatural diſtinctions in the profeſſion, of Dogmatiſts and Empirics; and of obtaining the indiſpenſable qualifications which ſhould centre in the character of a phyſician, thoſe of hiſtorian, philoſopher, and artiſt. By theſe means the great *deſiderata* of our profeſſion will be ſecured, and the reproaches which it hath ſuffered mitigated, nay, obviated; ſo that we may with equal juſtneſs ſay, as Lord Bacon did, when he compared his

philoſophy

philosophy with that of Aristotle; using the words of Philocrates when he differed from Demosthenes: "Wonder not, Athenians, that I differ "from Demosthenes; for he drinks water, and I "drink wine:" or in his own words, "For "all mankind, both ancients and moderns, "have drank a crude liquor in the sciences, as "a water that either flowed spontaneously from "the understanding, or was drawn out of the "well by the wheels of logic: whilst we drink "a liquor, and offer it to others, prepared from "an infinite number of grapes, ripe and seasonably gathered in clusters, somewhat squeezed "in the press; and lastly, purged and cleansed "in the vessel."

These, with numerous other motives, would incline us to inculate and admonish, as a ground of solid hope, the great importance of the principles of natural philosophy, and of the logic of the illustrious Bacon, to physicians; in order that they may analize the various powers operating on the living body, and productive of the phænomena of life; examine with precision the phænomena descriptive of these powers; perceive the coincidences of these phænomena and powers, together with their reverse; and ultimately deduce philosophically from them, in order to apply rules of conduct for the preservation of health and cure of disease. Thus we shall

attain

attain the ſummit of our miſſion as artiſts, whoſe office it is to apply the laws of nature to the uſeful purpoſes of life.

CHAP. II.

Inſtances of legitimate Inquiry in Morals, Natural Philoſophy, the Logic of Nature, and Geometry; aſſumed as ſtandards for appealing to, in any attempts to detect the Laws of Nature in the Animal Oeconomy.

THE conſtant view which phyſicians have taken of the animal body, as if it were not made up of a complete indiviſible whole, but of diſtinct parts, the operations of which were wholly independent of each other; their uniform and univerſal propenſity to conſider man in his moſt complex ſtate, prior to any ſurvey of his more ſimple and unbiaſſed ſtate; or, to render the matter more clear, their attention to human nature in a ſtate of diſeaſe, previous to the moſt complete examination of it in a ſtate of health, and of prediſpoſition to diſeaſe; appear to be exceedingly unphiloſophical.

It is a proſpect of the animal-œconomy borrowed from no department of philoſophy; which the following arguments will, I expect, prove.

1. Would it not be the highest species of folly, in the student of the laws of nature and of nations, to prosecute this branch of knowledge without any, nay, the most complete attention to the principle from which it springs, and of which they are only a more extensive transfer, viz. man as a moral agent, or the principle of morality? How fruitless would the presumption be, to prescribe rules of conduct for citizens and nations, previous to ascertaining the principles of conduct, which ought to actuate men as individuals? It certainly would be incumbent on us to ascend from the more simple aspect of this branch of moral knowledge, to the more complex. It would surely be an indispensable preliminary for us to have strictly philosophical ideas of moral perception; then of moral law; and ultimately, by extending the principle of justice, ascend to the rules of conduct, or laws, which ought to regulate men as individuals, as citizens, and lastly, as nations.

2. Would it not be the highest degree of absurdity and presumption, to prosecute with inconsiderate ardour the science of metaphysics, without a constant reference to, and perfect analysis of, the sentient and intelligent faculties of man? If we wished to rescue this department of philosophy from the obscurity, reproach, and pedantry, in which it has hitherto been involved;

if

if we were inclined to free this important branch of intellectual ſcience from the diſcredit brought upon it by the Carteſian ſchool; if philoſophers diſcovered a deſire to confer upon it the important office of diſcovering the moſt general conceptions which the human mind can form of the foundations of the ſciences and arts, or the method by which the mind approaches to the moſt general facts on which the ſciences and arts reſt; laſtly, if we mean to confer on it the important office of applying philoſophy to the belles lettres, we ſhould premiſe an analyſis of the faculties previouſly taken notice of.

3. Nothing certainly would appear more prepoſterous, than a perſon's applying himſelf to ſpherical trigonometry, the different ſections of the cone, and indeed every department of tranſcendent geometry, prior to an acquaintance with the elementary part of this ſcience, the properties of a ſtraight line and pure circle. Surely, things where a facility to comprehend obtains, ſhould be premiſed to complexity, or elementary to the more advanced departments of philoſophy.

4. The celebrated method of the mathematicians is ſtrictly conformable to this rule: "Methodus mathematicorum, puto ordinem, quo in "tradendis dogmatibus utuntur mathematici, incipit a definitionibus; pergit ad axiomata; his "ſuperſtruit theoremata atque problemata; qui- "bus

" bus corollaria, & ſcholia, ut res poſtulaverit,
" annectit *."

5. The truth of our propoſition is clearly evinced in the circumſtances which led the illuſtrious Newton to diſcover the laws which regulate the planetary ſyſtem: For we find this ſublime diſcovery, which hath fully immortalized his name, originate from the ſimple fact of body when unſupported falling to the ground, aided by the phænomena accompanying terreſtrial projectiles. This ſimple fact, and theſe analogous phænomena, he transferred to ſolve the motions of the heavenly bodies, and the paths they deſcribed.

The juſtneſs of the analogy, and the important truths they have revealed, all grant and admire.

6. An additional ſtrength to the juſtneſs of our remark, ariſes from an accurate ſurvey of the method and arrangement of natural philoſophers: For it is indiſpenſable in this ſcience, that matter ſimply and abſtractedly, or the metaphyſic of body, matter as occupying ſpace, gravitating in ſpace, and ſuſceptible of motion through ſpace, ſhould be involved in the preliminaries to the inveſtigation of its infinitely modified aſpects. Having diſcovered theſe general facts with reſpect to body, viz. body gravitating in ſpace, and ſuſceptible

* Matheſios Univerſ. Wolfii.

ceptible of motion through it, a solution is afforded to some of the more grand phænomena of nature, in the astronomical phænomena, in the phænomena of projectiles, the art of building, the different departments of mechanics, hydrostatics, hydraulics, and pneumatics. All these departments of nature are proofs of the laws of gravitation, simply, or combined with a projectile force.

We are therefore in every department of natural, moral, and intellectual knowledge, as well as in the science of quantity, furnished with important analogies, and principles, highly worthy of imitation and adoption in our profession.

In all these sciences the method of nature is conspicuous; as they have uniformly begun with the investigation of the more simple aspects of it, then gradually ascended to its more complex state.

It certainly is a subject highly worthy of inquiry, to discover, whether our profession is susceptible of a similar mode of investigation. And, if the most distant probability of the practicability of such a scheme was the result of it, we should discover no discordance, but rather a compliance with the precepts of philosophy, were we to adopt the following steps.

First of all, let us begin with observations on the simple phænomena of health, together with the

consideration of the several powers operating upon us in that state, and creative of its phænomena. In the next place, let us ascend to the phænomena accompanying deviations from this state, or the state of predisposition to disease, and the powers productive of it; and lastly, to disease itself: as the former appears to exhibit to us the most simple, the latter the most complex phænomena, as referable to man in a state of existence.

This is a view of the animal-œconomy equally new and scientific. The truth of the former is evinced by a reference to the uniform practice of physicians; who have been found to accommodate nature and their reasonings to system, not their reasonings and systems to nature: that of the latter is realized by its complete approximation to the several aspects of science, the outlines of which we have detailed at considerable length in the preceding parts of this chapter.

This is the view of medical doctrines lately offered to the world by Dr Brown. It is only the most slight degree of justice due to this eminent author, to observe, that his view of human nature in a state of disease, is the result of his progressive observations from health through the different stages of predisposition, to its ultimate progress in the attainment of idiopathic disease. That it is strictly compatible with the first principles of philosophy, an appeal to every as-

pect of ſcience, either as referable to material, or intelligent nature, will clearly evince.

That he has accompliſhed its end, the univerſal ſucceſs attendant on his practice in his own hand, and thoſe of his ſeveral admirers, is a complete demonſtration; as "the end of ſcience "is to create and to improve the arts *."

It is by this mode of inquiry, I believe, alone, we ſhall be enabled to aſcertain the cauſes of diſeaſe, interpret its phænomena, and deduce rules for removing it. Upon this principle we may hope to be of eſſential ſervice to our profeſſion, in accumulating uſeful facts, which are indiſputably much wanted, and in forming juſt and natural deductions from them. In compliance with this precept, we ſhall unite the obſerving and rational faculties, and accommodate our conduct to that of the bee. "For it appears, "that thoſe who have treated the ſciences, were "either Empirics or Rationaliſts. The Empi"rics, like ants, only lay up ſtores and uſe "them; the rationaliſts, like ſpiders, ſpin webs "out of themſelves: but the bee takes a middle "courſe, gathering her matter from the flowers "of the field and garden, and digeſting and "preparing it by her native powers. That, in "like manner, is the true office and work of "philoſophy, which, not truſting too much to "the

* Firſt Principles of Philoſophy.

"the faculties of the mind, does not lay up the
"matter afforded by natural hiſtory and mecha-
"chanical experience, entire or unfaſhioned,
"in the memory; but treaſures it, after being
"firſt elaborated and digeſted in the underſtand-
"ing: and therefore we have a good ground of
"hope, from the ſtrict union of the experimen-
"tal and rational faculty, which have not hi-
"therto been united *."

A conſtant reference to the principle of life in health, and nice obſervance of deviations from this ſtate, will enable us to reaſon juſtly with regard to idiopathic diſeaſe.

The analogy of the flight of a bomb, which Newton applied to delineate the paths of the planetary bodies, hath an affinity to the propoſition we wiſh to inculcate. For if we obſerve accurately the cauſes productive of ſlight deviations from health, and the appearances denoting theſe deviations, we may with confidence transfer them to idiopathic diſeaſe, the phænomena of which imply neither more nor leſs, than that cauſes of a ſimilar nature, but with greater energy, contribute to create it †.

By this manner of proceeding we may avoid the multiplication of cauſes, give a juſt interpretation of effects, hope to diſcover the laws of nature which regulate the animal-machine, and accommodate

* Bac. Nov. Org.

† Brown's Lectures, and Elem. lxvi. to lxxviii.

commodate our reaſonings to thoſe univerſal axioms eſtabliſhed by Newton.

None of the phænomena of nature would be involved in ſuch intricacy if we would avail ourſelves of the proper inſtruments of the underſtanding, diſpenſe with relying too much upon it when unaſſiſted, and proſecute her operations in a ſimilar manner; viz. firſt of all to begin with her more ſimple operations, and aſcend gradually and with patience the ſcale of intricacy. For the powers of the underſtanding are as unbounded when properly aſſiſted, as they are truly weak and helpleſs when left to themſelves. To which purpoſe Lord Bacon truly obſerves, "That the "root of all the miſchief in the ſciences is this, "that, falſely magnifying and admiring the powers "of the mind, we ſeek not its real helps *."

In order to remedy this, he wrote his admirable method of induction, which is full fraught with theſe precepts. But the infinity of important truths, and the ſucceſsful efforts of natural philoſophers, as reſulting from this model, afford a complete demonſtration, and an adequate conception, of its excellence, and of the vaſtneſs of the immortal author's deſigns. Without this ſafe monitor and indiſpenſable pilot, it is more than probable that a Gilbert could not have contributed much to aſſiſt the navigator, a Newton the optician

* Nov. Org. Scient.

cian and aſtronomer, or a Franklin the civil, naval, and military architect: Or, to adopt more accurate language, the complex and ſubtle phænomena of magnetiſm, of light, of planetary motion, and the more awful and tremendous appearances of thunder and lightning, would never have been inveſtigated with that beautiful preciſion and artful manner diſplayed in the writings of theſe great men.

CHAP. IV.

An Attempt to prove, that Nature operates as uniformly and univerſally in the Animal-œconomy as in any department of the material world.

WE are led, by every preceding conſideration, to this concluſion, That every wiſh is attainable, and every object to be accompliſhed, by the uſe of the beneficial influence of Mechanical Philoſophy, together with its truly important and indiſpenſable appendages, the Logic of Nature and Mathematics. It is the buſineſs of the former to obſerve the phænomena of the univerſe with accuracy and preciſion; to arrange theſe according to their generality; and to deduce with caution. Subjects which admit not of complete obſervation are aſcertained by the more ſure teſt of expe-

experiment. This is varied, or, to use the words of the illustrious Bacon, tortured, in order to obtain a clear and perfect result. The natural philosopher is never astonished at the novelty of any phænomenon; for he is aware of the infinite diversity of the appearances in nature. Novelties affect him in no other manner but as confirming him still more in some general law of nature, or as disproving an hypothesis. There is a maxim of very considerable moment constantly held in view by the natural philosopher, That Nature in all her operations discovers a wonderful degree of uniformity and universality.

With him this tenet, which is constantly had recourse to, in a great measure suspends the expectation of a notion very current among physicians, that the laws of nature are liable to exceptions.

Nothing is more familiar in the profession than the hearing a medical person relating a phænomenon or fact in nature, and at the same time declaring it not to be referable to any general law, or any fixed principle: consequently it must be an exception; or, in other words, it amounts to a belief, that nature operates by partial, and not by universal laws, in the animal-œconomy. This is a doctrine as prevalent as it is repugnant to truth and philosophy. It is an assumption of the most pernicious tendency, and warranted

ranted by the analogy of no branch of nature. Thus, in contemplating the ſolar ſyſtem, we are at a loſs to which we ſhould prefer the tribute of our admiration; whether to the grandeur or to the aſtoniſhing uniformity of their phænomena.

It hath been diſcovered, "that the primary "planets and comets deſcribe round the ſun, "and the ſecondary planets round their reſpec- "tive primary planets, areas proportional to the "times *."

That "the orbits deſcribed round the ſun and "round the primary planets are ellipſes, having "the ſun or primary planet in the focus †."

"That the ſquares of the periodic times of "planets revolving round common centres, are "proportional to the cubes of their mean di- "ſtances ‡."

If we transfer our attention to that aſpect of matter the agency of which is peculiarly confined to the organ of ſeeing, we can plainly diſcover, that the ſame uniformity and univerſality obtain here as in the preceding department of nature, as no exceptions to any law have hitherto been clearly demonſtrated; for it is known to every optician, That

"Light is propagated in ſtreight lines ||:" That "the angles of incidence and reflexion are "equal:"

* Kepler's 1ſt Law. † 2d Law.
‡ 3d. Law || Optical Law.

"equal *:" That "when a ray of light passes "obliquely through any boundary of transparent "medium, there is a constant ratio between the "sines of the angles of incidence and refraction, "viz. as 3 to 2 †:" That "the rays of light have "different degrees of refrangibility, the red least, "and violet most of all ‡."

In like manner, a survey of the magnetical and electrical phænomena and laws gives additional strength to the assumption, that Nature's laws are characterised by nothing exceptionable, but that we are instinctively led to this belief, that the Creator's works are subservient to no motive of caprice, which the idea of exceptions strongly indicates a belief of; but that a pleasing uniformity is discernible in every department of the universe. Thus, after having examined the apparently unaccountable phænomena of magnetism and electricity by the the strictest analitical scrutiny, and to this having added and connected mathematical evidence, their infinitely modified phænomena have been found to be reducible to a few simple laws; viz. That "the magnetic fluid repels its own particles after a certain law, or at a certain distance ‖:" That "it attracts iron particles by the same law §:" That "it moves with difficulty through soft iron, "more

* 2d Law. † 3d Law. ‡ 4th Law.
‖ 1st Law. § 2d Law.

“ more ſo through ſoft ſteel, and ſtill more ſo “ through air *.” What applies to magnetiſm hath been found to be equally applicable to electricity; with this difference only, that what is hypothetically true with regard to the former, is phyſically ſo with reſpect to the latter.

No man in his ſenſes, unleſs a profeſſed diſciple of Pyrrho, could doubt of the validity of the foregoing laws in the ſeveral ſubdiviſions of nature, or that they were liable to exceptions. For all the facts leading to the arrangement have undergone ſo ſtrict an analyſis, and the induction which leads to the law in each is ſo complete, that we are forced to lend our aſſent to their truth.

Hitherto we have exemplified the grand truths reſulting from the application of inductive ſcience to ſome of the moſt intricate aſpects of material nature: In each of which the moſt complete conformity to the precept held forth by the great Reformer of human knowledge obtains, viz. the torturing her, as in each a perfect and clear reſult is diſcernible: for every apparently anomalous phænomenon is perceived to have ſome relation to another; conſequently adds one to the aſſemblage of facts.

From this ſcene of elegant contemplation we are irreſiſtibly ſolicited to turn aſide our attention for a few minutes to medicine, where a different lan-

* 3d Law.

language from that we have been adopting is held forth.

Inſtead of uniformity and univerſality obtaining in the operations of Nature, and being one of the moſt ſtriking characteriſtics of her laws, the doctrine of exceptions to her more general laws is conſtantly inſiſted upon, and with great pretenſions to erudition inculcated, whenever any anomalous phænomenon, or fact repugnant to a prevalent hypotheſis, obtains. Thus we find the notion of plethora hath been univerſal among phyſicians, from the time of Hippocrates to the preſent, eſpecially in the following ſet of diſeaſes; gout, epilepſy, palſy, apoplexy, hyſteria, aſthma, &c. Conſequently, the practice reſulting from this ſuppoſed principle conſiſts of purgation, inanition, bleedings, together with a cloſe adherence to a vegetable diet, and complete abſtinence from all kinds of animal-food. This is not the place to appeal to argument or fact in order to evince the highly pernicious tendency of the antiphlogiſtic practice, when applied to theſe forms of diſeaſe *. It is only neceſſary to obſerve, that the moſt unqueſtionable inſtances are adduced, even by thoſe who ſupport with ſuperſtitious credulity the doctrine of plethora, of the tonic plan of cure being completely adequate to the removal of epilepſy, aſthma, &c. Theſe, however, are conſi-

* See the El. Med. from par. ccxci. to ccciv. and from cccv. to cccxiii.

considered as solitary facts, and given, forsooth, as exceptions to their favourite plethora; which is still retained in practice, together with the pestilential blasts which issue from its applications.

It hath been proved by a very copious induction of facts, aided by completely demonstrable arguments, that the plethora alleged in these diseases is truly ideal, and that the exceptions to this hypothesis are the only grounds upon which these diseases can with any confidence * be explained.

The doctrine of exceptions may with justice be referred to inadequate perceptions of the import of the first principles of science, as it requires not the aid of demonstration to prove it to be incompatible with truth, pregnant with mischief, and attended with the most baneful consequences in the practice of the profession. It is unquestionably the pillar upon which empiricism rests, as it strongly favours the most torpid inaction in the accomplishment of full and manly views, forms an unsurmountable barrier to the generalization of facts, and to the important deductions naturally resulting from them.

From a long train of experience, we are naturally led to expect, that a dose of opium, given to one man, will, in a state of great debility, moderate

* Brown's Lectures on the Practice of Physic, and the place of his published work last quoted.

moderate the frequency of his pulfe, allay delirium, relieve and abate pain, afford fleep and refrefhment, and give recreation and a greater degree of excitement to the whole fyftem. Now, that the fame dofe, as it is commonly afferted, given to another perfon under the fame circumftances, would not be attended with fimilar effects, is an inadmiffible fuppofition. A perfon may with equal confidence expect an exception to any of the preceding laws in aftronomy, optics, or electricity, as to this laft.

It may be proved *a priori*, and daily experience countenances the conclufion, that the ufe of a full and generous diet of animal-food, the ftimulus of heat not carried to excefs, that of fpirituous liquors, and other powers that operate on the fame principle, will inevitably plunge a perfon into a phlogiftic difeafe. And it is from this very fource that peripneumony, fynocha, and rheumatifm, originate *.

If the examples adduced are true, and which can be as little doubted as that "light "moves in ftraight lines," or any other optical truth, a law of nature is difcovered. It would be completely ridiculous and abfurd to expect an exception to this general fact, by fuppofing that a perfon would fall into a dropfy, into a dyfpeptic ftate, or hazard a dangerous typhus, from

* Elem. Med. Brun.

purſuing a ſimilar mode of life with a perſon who fell into a peripneumony, &c.

Indirect cauſes of debility may intervene, and contribute, with others, to produce the laſt-mentioned diſeaſes. But that is no exception. For the diſeaſes firſt mentioned do not ariſe from the ſame powers operating in the ultimately high degree in which they produce debility, but from their operation in that degree in which they only produce vigour in exceſs. This concluſion reſts not here. It is extended to all idiopathic diſeaſes. And we are taught, that all theſe ariſe from one or other of two ſets of powers, exceſſive or deficient ſtimulants. The phlogiſtic form is induced by the former, and the aſthenic by the latter. And their difference from each other is, as we ſhall have occaſion to ſay, only a difference of degree, they being all ſtimulant in kind. All this he has proved by the moſt complete proceſs of inductive reaſoning. There is not a particular in the whole extenſive ſurvey, that has not been ſubjected to an accurate examination, before any attempt was made to apply it to the general principle. He had been biaſſed to the belief in exceptions; he ſearched for them, and found nothing but fact crowding on fact to eſtabliſh the general law. And while the cauſes of the two forms differ in the manner mentioned, it was evident, that remedies equally different,

ent, and differing in the fame way; that is, not in kind but degree, muft remove them. This, too, he has proved in the fame complete manner. And the conclufion muft at firft fight be granted, or there is an end of all found reafoning.

All this amounts to a plain demonftration, that the caufes, which give birth to this doctrine of exceptions to general facts, originate from incomplete analyfis, artificial arrangements, and falfe inductions; in fhort, from all the caufes which give birth to fophiftry in fcience. But, frail as this bafis upon which it refts may appear, it ftill muft continue the foundation upon which the builders of fyftem, and the croakers of hypothefis, have trod, and muft ftill continue to tread, if they wifh to cloak their impofture from the ignorant and credulous, and fhun the mortifying ftings accompanying detection.

CHAP. V.

The Application of the Principles of Philofophical Analyfis and Induction to Medicine.

WE have attempted a divifion of our fubject into two diftinct parts; preparatory, and fcientific. The preceding chapters have a reference to the former, the following to the latter.

ter. In the former, an effort is made to instil into the mind a suitable propensity for the reception of truth, and for the investigation of an intricate department of nature, by affording it proper directions, dispositions, and models, to appeal to in so arduous an undertaking, and by fortifying it against the prejudices natural to men *.

In the following departments we are engaged in a more serious inquiry, and in topics of singular moment; since by them the instruments, with which philosophers have hitherto been successful in the discovery of the laws of nature, are developed. The method of analysis and induction applies to every aspect of nature, to the sciences of physics as well as to ethics. In the former, from phænomena and mathematical evidence, we arrive at the laws of body. "In the "latter, from moral perception, we ascend to "moral law; and from moral law, by an exten-"sion of the principle of justice, we ultimately "arrive at the laws of nature and of nations †."

In order to introduce with propriety the articles taken notice of in the text, it is necessary to observe, that the history of philosophy exhibits to us two remarkable æras. The one is distinguished by the *Organum* of Aristotle; the other by

* See Bacon's Nov. Org. Scient.

† Professor Bruce's Lectures.

by the *Novum Organum* of Lord Bacon. The one has a reference to the invention of ſyllogiſm; the other to analyſis and induction. It is not our province to give a comparative view of the relative merit of theſe engines in ſcience. It is only neceſſary to obſerve, that in ſyllogiſm the mind deſcends from general principles to facts involved in them. On the contrary, in induction, it begins with particulars, and riſes gradually from theſe to the laws of nature formed by them. The firſt took its origin among the Greeks, and pervaded the whole ſyſtem of philoſophy for 2000 years: The latter was the diſcovery of the great Bacon. Finally, the one is the offspring of art; the other, the child of nature. The veſtiges of the former are perceptible in medicine, on the ſlighteſt examination of its different aſpects; but of the latter the moſt faint traces occur only to our obſervation in the ſame profeſſion. Which in its preſent ſtate was to be expected, as induction ſignifies the progreſs of the mind from a knowledge of particulars to ſome general truth, a method ſcarce ſo much as dreamed of by phyſicians. In it, the mind never admits a law, reſpecting any department of nature, till it has examined every particular fact which gives riſe to it, ſeen its place with reſpect to others, and marked its import. But all this is a progreſſion diametrically oppoſite to that, till of

late followed by the different creators of medical syſtems.

Previous to entering upon our ſubject, it is neceſſary to point out the ſubſerviency of analyſis and induction to each other. The method of analyſis, we obſerve, is the method of nature, as it ſhould be a faithful picture of nature. Its province is to be converſant about particular objects or phænomena, in order to aſſemble them together to facilitate their arrangements in nature. The ſcience of induction riſes on analyſis, or proceeds from the facts and arrangements in nature to the diſcovery and application of its laws.

"The phænomena, which afford an induction "deſcriptive of a law of nature, aſcertained by "analyſis, muſt be obvious, uniform, and uni"verſal *." But, while the phænomena and facts of nature are the foundations upon which legitimate induction is reared, there is nothing more general in medicine than doubts relative to facts in nature as related by phyſicians. Indeed, this is ſo univerſal a theme of reproach, that, when a perſon attends a lecture, a ſociety, or reads an author, a ſingle page can ſcarcely be paſſed over in the latter, or a ſingle minute elapſe with reſpect to the former, but the mind is harraſſed with doubts, and vex-

* Bruce's First Principles of Philoſophy.

ed with uncertainties. So that it very evidently appears, that we labour under precifely the fame difficulties in medicine with refpect to the legitimacy of our facts, which natural philofophers did, when the *Novum Organum Scientiarum* of the great luminary of modern philofophy was preparing for the infpection and direction of fubfequent difcoverers. His expreffion on the occafion is highly beautiful, and admirably well adapted to our purpofe.

" And for the foundations of experience, " which is the next thing we muft proceed to, " they have not hitherto been laid, or very weakly. " Nor has a collection of materials, competent ei-" ther in number, kind, or certainty, for inform-" ing the underftanding, or any-wife fufficient " and worthy of the end propofed, been hitherto " made. But, on the contrary, learned men, after " an eafy, indolent manner, have received cer-" tain rumors of experience, and the popular re-" ports and tales thereof, both for building and " ftrengthening their philofophy, and giving " them the weight of ftrong teftimonials. Which " is juft as if a kingdom fhould govern itfelf, " not according to the advices and intelligences " of its ambaffadors and trufty officers in foreign " courts, but by the idle rumours and common " town-talk of its people. For as to matter of " experience, there is nothing hitherto well difco-

 " vered,

" vered, verified, adjufted, weighed, or meafu-
" red, in natural hiftory: And whatever is vague
" and undefined in obfervation, muft needs be
" fallacious and deceitful in the information. And
" if this fhall feem furprifing, or the complaint
" appear unjuft to any one, whilft fo great a
" philofopher as Ariftotle, affifted with the purfe
" of fo great a prince as Alexander, has compi-
" led fuch an exact hiftory of animals; and
" whilft fome others, with greater diligence,
" though with lefs buftle, have contributed many
" things thereto; and whilft others, again, have
" wrote copious hiftories and accounts of plants,
" metals, and foffils; fuch a perfon does not feem
" fufficiently to underftand our meaning. A na-
" tural hiftory, compiled for its own fake, is one
" thing; and a natural hiftory collected for in-
" forming the underftanding, in order to the
" building of natural philofophy upon it, is an-
" other. And thefe two hiftories, as they differ
" in other refpects, fo do they principally in
" this, that the former contains various defcrip-
" tions of natural bodies, but not experiments
" of mechanic arts. For as, in civil life, the
" temper of a man, and the fecret difpofitions of
" his mind and affections, are better underftood
" when he is ruffled than otherwife; fo the fe-
" crets of nature are better got out by the tor-
" turing of arts, than when fuffered to take their
" own

" own courſe. And therefore we may then have " good hopes of natural philoſophy, when na- " tural hiſtory, which is the baſis thereof, ſhall " be better ſupplied, and not before *."

In like manner, we may have good hopes for the cultivation and improvement of that art, which hath a reference to the ſucceſsful conduct of health and diſeaſe, when the powers productive of the phænomena of health and diſeaſe are accurately analized and underſtood. How fundamentally ſubverſive of this idea, is the fabric of Empirciſm, and the doctrine of Specifics? A numerous range of which are uſhered in at one time, with a thorough conviction and a poſitive certainty as to their mighty efficacy; at another period, rejected with indignation.

The unexampled applauſe which cicuta met, with in the cure of all the modifications of ſcirrhus and cancers, is a memorable inſtance within our own memory of the credulity of phyſicians. The notion of ſpecific excellence pervaded the whole medical world for a conſiderable length of time, after the reception of this drug into practice: And the enthuſiaſm of its abettors have been abundantly evinced, in the melancholy records of moſt charitable inſtitutions for a conſiderable ſpace of time. This drug affords a ſingular inſtance of the repugnance to the pre-

cepts

* Bacon's Nov. Organ.

cepts of philoſophy, which the phyſicians, who glory in the title of Empirics, diſplay upon every occaſion.

Inſtead of attending to the circumſtances concomitant to the exhibition of every drug, of aliment, drink, temperature, exercife, paſſions of the mind, &c. their ſole attention appears to be engroſſed in the exhibition of a few grains of this remedy; as if no benefit was to be ſuppoſed to accrue from any of the ordinary powers which actually ſupport life, by affording a ſtimulus, the failure of which had induced the diſeaſe. If they had examined accurately the powers productive of ſcirrhus, and the period of life at which it happens, they would have diſcovered that they were all ſuch as act by a debilitating operation. This conſideration ſolely would have led them to pay no ſuch uncommon deference to this unimportant and ineſſential material, or truſt to ſo impotent a power, as a few grains of an inſignificant remedy. However, this I will venture to affirm, and I believe every phyſician of candour and liberality will aſſent to it, that without a conſiderable attention to the ſeveral powers, that operate by an invigorating quality, cicuta hath never been efficacious.

The next in the catalogue of noſtrums is zinc; the reputation of which, in the cure of epilepſy, hath been little inferior to the preceding in the treatment

treatment of ſcirrhus. At one period its medicinal powers were, to adopt the language of its rhapſodiſts, fully adequate to obtain a complete radical ſolution of this diſeaſe.

The hiſtory of this article exhibits to us a curious inſtance of neglect, and inattention to the circumſtances accompanying its exhibition; as we have demonſtrable proofs of its being ſolely and abſtractedly attended to, till experience clearly evinces its inefficacy, and completely ſhews the want of an analyſis of its qualities and the nature of this diſeaſe: for no inference reſpecting its qualities and mode of operation is diſcernible; all that is ſuppoſed, is only that it is poſſeſſed of ſome ſpecific virtue.

At another period mercury is received as a ſpecific in lues venerea; in which the ſame *petitio principii* obtains as in the preceding articles, till the want of noſes, and complete deſtruction of gums, fauces, teeth, and tongues, afford a tacit intimation to phyſicians of the impropriety of confiding ſolely in it: conſequently recourſe is had to mezereon, ſarſaparilla, the Liſbon diet drink, and a variety of ſuch articles, but all without effect. Hence will the miſerable ſufferer ſink under his load of grief and anguiſh, a victim to the want of application of the principles of philoſophical analyſis to the ſubjects of the Materia Medica. It is agreed by all phyſicians, at leaſt by all that

have

have appealed to its effects, that mercury operates as a ſtimulus; that it promotes, if aided by other ſimilar powers, a vigorous perſpiration; and is inductive of other phenomena characteriſtic of the operation of a ſtimulus. It legitimately follows, therefore, that the good conſequences ariſing from its uſe reſult from this ſource. Is it therefore not wonderful, from this inference reſpecting its qualities, that means of a ſimilar nature are not had recourſe to during its uſe, to co-operate with it, to enlarge the baſis of our truly limited practice, and more completely to obtain the advantages which theſe qualities intimate to us.

The ſame mode of reaſoning will apply to the method adopted by phyſicians in the uſe and abuſe of electricity. Nothing is more familiar than the obſerving this valuable remedy uſed conjointly with ſome other evacuant and debilitating powers, viz. bleeding, purging, inanition, &c *.

This is a remedy known to every perſon to be poſſeſſed of remarkably quick ſtimulant powers: it hath therefore been uſed in the different modifications of paralyſis, and is found to afford a temporary ſuſpenſion of the complaint; which, however, ſhortly recurs as violent as ever. From this it naturally follows, that powers operating upon ſimilar principles, but of a more durable

* I have ſeen this practice an hundred times in the Royal Infirmary of Edinburgh.

durable operation, would be fully adequate to obtain an effectual cure in moſt caſes of idiopathic paralyſis.

It is ſtrictly admiſſible, and compatible with common ſenſe and experience, to believe, that caſes of paralyſis where electricity has been applied, have been relieved; hence its denomination of a *ſpecific*. But to give credit to reports of its being ſolely efficacious, or where powers diametrically oppoſite have been conjoined, is as prepoſterous as the belief that the world is compoſed of atoms and pores.

Further, I have heard it gravely aſſerted by one phyſician, that the volatile alkali, an acknowledged pernicious remedy in every phlogiſtic diſeaſe, had been uſeful in peripneumony, who with the ſame breath affirmed it to be particularly efficacious in intermittent fevers *. By another phyſician the exhibition of *ſerpentar. Virginienſis*, had been recommended for a trial to a friend of mine who had occaſion to attend a patient in peripneumony, though its ſtimulant qualities were univerſally acknowledged. In the laſt, the moſt complete traces of Empiriciſm obtain: and as to the former, we are irreſiſtibly led to place no confidence in the aſſertion; for every appeal to the nature of peripneumony, and the principles upon

* Dr Home's Lectures on the Materia Medica.

upon which the medicine operates, lead directly to a negation of the fact so assumed.

The importance of this analysis is still further conspicuous, in order to remove the implicit credit which some physicians have paid to a few practitioners in Holland. Who have, from false principles in pathology, conceived that absorbent earths, especially the *oculi cancrorum*, were singularly efficacious in uterine affections, especially in leucorrhœa; and that the peculiar efficacy of this remedy resided in its astringency. Can any thing be more preposterous than the conceit, that ℨj. or ℨß. of this drug should affect the living body in such a manner as to remove a disease of such considerable debility as leucorrhœa, where, independent of the weakness of the parts locally affected, every function is so considerably impaired, and the seat of the disease can be demonstrated from every cause inductive of it, and every power capable of removing it, to occupy the whole system.

Besides the discharge of serum, which takes place from the relaxed uterine and vaginal vessels, and which constitutes a considerable share of this disease; it is frequently found to be conjoined with a discharge of blood from the same vessels. In this condition it is found to be, in the event, at least 39 times in 40 incurable, according to the present practice. It is truly astonish-

ing

ing that the lives of our fellow-creatures ſhould be ſo ſported with, as to be thus ſubjected to the lies of impoſture and the ignorance of credulity.

Semiruba is a medicine which hath met with its encomiums; and eventually will, I preſume, meet with the fate it deſerves. This remedy hath been recommended as a ſpecific in dyſentery, as much as gum kino, columbo root, &c. have in diarrhœa. But, I believe, no phyſician will be ſo mad as to refer us to actual inſtances of their ſucceſs; for an appeal by the unprejudiced to their efficacy, would, I have no manner of doubt, belie any aſſertion to the contrary.

The reliance of phyſicians on æther, in caſes of aſthma, hath equally been ſubjected to diſappointment in the event. This medicine is remarkably ſucceſsful in preventing a paroxyſm when forming, as well as affording a ſolution to it when formed. But, mark the conſequence: The fit, ſimilar to a part affected with palſy, and relieved for the time by electricity, recurs more violent than ever; and paroxyſms are found more frequent in conſequence of its uſe.

Is it not agreed by all phyſicians, that æther is one of the moſt diffuſible of all ſtimuli, or, according to their language, a moſt powerful antiſpaſmodic? That it prevents the fit's approach, and relieves it when preſent, from its affording

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a ſtate of temporary vigour, is unqueſtionable: What might then be expected from powers of a ſimilar nature, but of a more durable operation?

Angina Pectoris is a form of diſeaſe which hath made ſome buſtle of late in the medical world. Whether or not it is the more conſpicuous for its novelty, the uncommonneſs of its appearance, or its malignancy, is not my province to aſcertain. But this is certain, that phyſicians have hitherto made no obſervations, either on the cauſes which produce it, or the remedies which remove it, that amount to uſeful facts, notwithſtanding numerous inſtances have ſolicited their notice ſince it firſt of all obtruded itſelf on their attention. Neither is it to be wondered at, while their whole attention is engroſſed in ſearching for ſpecifics, ſuch as the different preparations of antimony, &c. and for ſome ſnug corner of noſology for its reception. Whereas, had they applied the principles of analyſis to the powers inductive of it, and the forerunners to its formation; if to this they had ſuperadded complete attention to the real phænomena of the ſtate of prediſpoſition and of the diſeaſe; its nature would long ere this have been diſcovered, and practitioners would have been relieved from the inconſolable affliction attendant on ſeeing their fellow-creatures in extreme miſery, without relieving their diſtreſſes.

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The credulity of that physician is ſtill further pitiable, who, from confidence, in the peculiar efficacy of burnt leather, burnt ſpunge, and other traſh of a ſimilar nature, expects to cure ſcrophula, and a variety of tumors both encyſted and ſolid, occupying different portions of the body. I know no character ſo truly deſpicable, or that merits the indignation of ſociety more, than the wretch who deſpiſes the knowledge of rules of ſcience in the practice of a liberal art, where the moſt invaluable of all human bleſſings, health, and its attendant comforts, are at ſtake. Nothing ſurely more completely evinces the revival of the philoſophy of Democritus, than this propenſity of phyſicians to Empiriciſm. Inſtead of obſerving coincidences and affinities in nature, they obſerve a very different conduct indeed: Like apt pupils in the Democritic ſchool, they endeavour to demonſtrate that nature is made up of parts completely heterogeneous with reſpect to each other; and that a pleaſing affinity is nowhere diſcernible in her phænomena, or the characteriſtic of her works. Were we, however, to follow the ſteps which Newton did in his diſcovery of the laws of light, or of planetary gravitation, a very different opinion would inſtantly be begot in us. This illuſtrious philoſopher, in the laſt caſe, ſaw that it was the property of all bodies to fall to a common centre. He ſaw

this property not only in ſmall bodies, but in great; in thoſe at a diſtance, as well as thoſe at hand. From which analyſis of particulars he drew this inductive concluſion, That it is a general law of nature, that all bodies gravitate.

Should our curioſity lead us further to purſue the inquiries of this great man, we ſhould find him diſcover ſome general property in which bodies exiſting on this earth agreed, and of which its machinery is formed, and this forming a part in one great whole. Should we ſtill go further in our inquiries, we could find other planets like our earth, enlightened by the ſame ſun, and this forming but a part in the ſolar ſyſtem. Nay, our journey would not end here. We next could diſcover other ſuns enlightening other worlds like our's, and our ſun but forming one point in the immenſe collection of ſuns and worlds. We find them all making a part in the univerſe, and forming all diſtinct parts of being *. Here ceaſe our inquiries; the mind can expand no more. In this progreſs the method of analyſis is ſufficiently conſpicuous: The inquirer, from an analyſis of particulars, hath, in the aſcending ſcale, or, to uſe the language of ſcience, by the analyſis of compoſition, diſcovered the moſt general of all truths or laws.

We ſhall, in a ſimilar manner, trace the ſteps which led Dr Brown to that extenſive induction, from

* Addiſon's Spect.

from which he demonſtrates, in the moſt indubitable manner, that all the powers which operate upon living animals, and that are productive of the phænomena of health, prediſpoſition to diſeaſe, and actual diſeaſe in them as well as in the vegetable creation, ſtimulate. It is our province to examine it on the principles of philoſophical analyſis; nothing being more certain, than, that, when we forſake the method of induction, error unavoidably enſues. The errors in natural philoſophy, previous to the application of inductive ſcience to it by the modern Eclectics, as well as the abſtractions, &c. among the ſects of moraliſts and metaphyſicians, are complete proofs of the obſervation. The unnatural diſtinctions in the ſyſtems of Materia Medica, are unqueſtionably the reſult of applying falſe philoſophy to medicine. But the miſchief reſts not here. For the greateſt of all plagues in ſcience, inaccurate language, has been ſuperadded to the evil.

In this dilemma, a mind poſſeſſed of ſingular accuracy and profound judgment, was indiſpenſably requiſite, in order to analize all the ſeveral powers operating upon animated nature. This important taſk appears to have been allotted to Dr Brown. He ſet out with an hypotheſis. However, he found it as indiſpenſable to adopt the Newtonian rule in this department as in the

 other

other parts of his fyftem; and his progrefs is ftrictly conformable to it. He began his obfervations on powers which were known and familiar to him, and by degrees rofe to thofe which were more remote from his obfervation. He neceffarily found, that the blood, chyle, food, the fluids feparated from the blood, air, heat, &c. ftimulate animals. From thefe phænomena his attention was neceffarily transferred to the proper functions of mind, viz. paffion, emotion, thought, together with mufcular action. Thefe he alfo found to ftimulate; their effects being the fame, viz. life in its different degrees: for without the agency of thefe powers, life muft ceafe.

Having furveyed all thefe more familiar objects, his attention was neceffarily called to fubjects more difficult of examination, and intricacies feemingly unfurmountable affailed him; fo that his hypothefis muft have perifhed: for the operation of contagions, poifons, opium, and numerous objects of a fimilar nature, were unqueftionably of difficult folution. To his embarraffments in this fituation, the doctrine of anodynes, the fate of the Marfeilles porters, who died upon opening bales of goods impregnated with the contagion of the plague from the Levant, together with the difafters accompanying dogs who vifited the Grotto del Cani, were apparently

fufficient

fufficient to convince his opponents, of the wild delufion of his opinions. In this fituation, he had recourfe for reinforcement to the principles of the fecond Newtonian axiom; and this afforded a complete folution to his manifold embarraffments.

He reafoned as follows. Heat to 63 degrees ftimulates animals fufficiently for the due performance of all the functions of body and mind. When it is above this point, or below it, the phænomena of life are heightened or impaired; but when confiderably above or below it, the functions of body and mind are impaired, or ceafe altogether. For example, a man deprived of mufcular action and proper cloathing, could not live a few minutes at the freezing point: and yet would it be falfe to allege that this temperature is ftimulating? fince fifh and feveral animals are found to live even under that temperature, and to perform all the proper functions of life in it. It is therefore a legitimate confequence, that this temperature is ftimulating, as the effects, viz. life, &c. are equally enjoyed at 68 as at 0.

This mode of reafoning he hath adopted in the examination of every power operating upon the human body, whether blood, air, food, &c. For blood in abundance and in defect conftitutes a ftimulus; food, nourifhing abundantly, or af-

fording a defective nourishment, produces the same effect. Air, when pure, affords, probably independent of its use in respiration, a considerable stimulus to the body, and its effects in all probability are in proportion to its purity.

Impure air, improper food, and deficient quantity of blood in the system, are found to give birth to fevers of the most malignant nature: If contagion be superadded, their effects are increased, but no essential difference in the nature of the disease is constituted. Hence he draws this inductive conclusion, That contagions, whether affecting persons predisposed to phlogistic or asthenic disease, operate like the ordinary powers; their effects being the same precisely with them, in increasing * or diminishing † excitement.

Poisons, giving birth to idiopathic disease, add additional weight to his conclusion. Numerous facts are not wanting to prove, that epilepsy, palsy, apoplexy, and asthmatic paroxysms, have been induced by poisons. Their giving birth to these forms of disease, are complete proofs of their operating in a manner analogous to the ordinary powers, viz. by giving a deficient stimulus, or by diminishing the excitement; which, by a copious induction of facts, he proves

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* As in small-pox, measles, and all the phlogistic exanthemata.

† In plague, simple typhus, cynanche gangrenosa, &c.

to be the cause of these diseases, and not plethora. They require, therefore, a very different mode of cure from that which the doctrine of plethora suggests.

Opium, he also undeniably proves, contrary to the received opinion, to be a most quickly diffusible stimulus, and not a sedative. Its essential use in diseases of the greatest debility, in abating the frequency of the pulse in the last stages of fevers, dropsies, &c. which unquestionably is a symptom of debility; its allaying delirium in fevers, and affording sleep, which are symptoms also of debility *; its universally proving detrimental in all phlogistic diseases, in all recent and gun-shot wounds, by preventing instead of procuring sleep, by aggravating instead of allaying urgent symptoms, prove the truth of the observation.

In this manner he proceeded in surveying every power operating upon animals in their living state; and ultimately arrived, aided by the rules of analysis and induction, at the most universal conception which the mind can attain, viz. this extensive law in nature, "*That all the powers* "*operating upon the animal and vegetable king-* "*doms, and creative of all their phænomena, sti-* "*mulate.*"

Thus have we attempted the application of the

* Brown's Lectures.

the principles of philosophical analysis and induction to the profession of medicine. The subject is highly worthy the most accurate examination; having no less an object than the complete extirpation of Empiricism.

The strange propensity of physicians to Empiricism, which at present so flagrantly directs every department of the profession, hath given rise to a very copious catalogue of books of cases *; from which no useful or just deduction can be drawn, no truth discovered, but this very melancholy one, That the lives of our fellow-creatures are subjected, especially in hospitals and dispensaries, to the dogmatic canons of credulous graduates.

The assemblage of false information lately recited, is an additional argument for its completion. For without these important instruments of science, no resemblances in the powers operating upon the human body will be perceived; but the idea of exceptions to the laws of nature will be inculcated without end. On the other hand, if complete attention to the circumstances accompanying the exhibition of medicines were attended to, an analysis of the more general qualities of these medicines would be obtained; and an induction would follow, explicative of the laws of naure, and characteristic of different diseases.

* See Home's Cases in the Infirmary, and Duncan's in *his Dispensary*.

CHAP. VI.

The Application of the Principles of Philosophical Evidence to MEDICINE.

PHILOSOPHICAL evidence signifies the means employed to ascertain the reality of the objects and relations in nature.* Its branches are, consciousness, intuition, sensation, cause and effect: That which belongs to medicine, is the particular species of evidence, effect and cause. Observation and experiment guide the human mind in applying the degrees of evidence *.

From the preceding definition of evidence we are warranted in asserting, that no recourse to demonstration is required, in order to prove, that the cultivators of our art have paid too little attention to the subject of this chapter. It is a subject that appears in a light truly important, as it consists in an analysis of the different means which establish truth. Hence we find that different sciences require different kinds of evidence, and afford corresponding degrees of certainty. The truth of our observation is sufficiently exemplified in the superiority which the modes of demonstration in physics and mathematics discover, to that observed in metaphysics and ethics.

To ascertain the degrees of evidence and certainty

* Bruce's Lectures.

tainty which apply to medicine, is a ſubject highly meriting a pen capable of genuine philoſophy and preciſion. The thoughts I have to communicate will be expreſſed as briefly as poſſible.

In practical writers we find the cauſes of diſeaſes deduced from the evidence which ſymptoms, independently and abſtractedly conſidered, ſuggeſt. Hence we find a particular attention to theſe circumſtances ſtrongly inculcated by noſological writers, as coincidences and affinities in the line of ſymptoms conſtitute the baſis upon which this frail department of our profeſſion reſts. It requires no preternatural ſhare of acuteneſs to demonſtrate, that this modern appendix to medicine is fundamentally erroneous: that it miſleads from the real obſervation of nature; and rears its fabric of affected acuteneſs and oſtentation, on the baſis of falſe philoſophy, by the admiſſion of falſe evidence.

I ſhall endeavour to prove, that the abſtract conſideration of ſymptoms leads directly to error in almoſt all diſeaſes. We ſhall, in the firſt place, inſtance the truth of this remark in proper fever; the proximate cauſe of which is inferred from the dryneſs, paleneſs, and conſtriction on the ſurface: Hence the denomination of *ſpaſm* *. But we have complete perception of the removal of this conſtriction or ſpaſm, by the appearance of

* See Cullen's Firſt Lines.

of colliquative ſweats which eventually enſue, and colliquative diarrhœa, and other ſymptoms of the ſame import; while the paleneſs and other ſymptoms indicating the exiſtence of this ſuppoſed cauſe remain; and the diſeaſe, inſtead of being relieved, continues with an accelerated progreſſion in its fatal career.

Further: The cauſe of inflammation is referred to the ſame principle, viz. a ſpaſm of the extreme veſſels. Let any perſon of common ſenſe but examine what kind of evidence lays the foundation of this induction, or whether it has any evidence but that ſuggeſted by ſuppreſſed perſpiration, which is a ſymptom univerſal in phlogiſtic diſeaſes: It will appear completely fallacious like the preceding. But notoriouſly ſo with reſpect to the latter, as a flagrant piece of ſophiſtry is committed. For the general operation of all the powers creative of phlogiſtic diatheſis acts upon principles that would remove a ſpaſm; and the powers employed to remove the inflammation or phlogiſtic diatheſis operate upon principles that muſt altogether fix a ſpaſm; which unqueſtionably is a ſymptom of debility, whether as occupying an internal cavity, or an organ of voluntary motion. It is truly aſtoniſhing, that even the reſult of more than forty years experience ſhould be an attempt to reconcile ſuch glaring abſurdities.

Indeed,

Indeed, it would be an endlefs fubject to purfue this falfe philofophy through all its windings and mazes. Suffice it to obferve, that all his proximate caufes, at leaft thofe that have the moft diftant claim to novelty, are the refult of falfe evidence. The evidence fuggefted by the *juvantia* and *lædentia*, the only fpecies of evidence upon which we can hope to make difcoveries, is altogether omitted; and attention to apparent phænomena, not the real phænomena of nature, are almoft folely inculcated.

An aftronomer may as well expect to draw a juft conclufion of the real motions of Jupiter or any other primary planet, from their apparent contorted and looped evolutions; or a philofopher difcover a law of nature, in phyfics, or morals, by an appeal to the Categories of Ariftotle; or a critic hope for fame in all the fine arts, when he breathes nothing but the rules of Ariftotle, Quintilian, and Longinus; as a phyfician can hope to difcover the nature and caufes of difeafes, when he rears his inductions on falfe evidence.

If this afpect of fophiftry in medicine were altogether confined to the formation of hypothefes; if its precepts did not extend to the practice of the profeffion; if its influence did not pervade both private and hofpital practice, which I hope to eftablifh by proper inftances; nay,

nay, if its baneful consequences were not universally conspicuous, it might admit but of a slight animadversion. But the innumerable instances of its fatality which I have seen, and which daily occur, should certainly have given birth to a different aspect of evidence. Without just evidence, confusion must attend our judgment in the following modifications of idiopathic disease, phrenitis, ophthalmia, hæmorrhagy, rheumatism, and the fugitive pains which so frequently accompany the asthenic diathesis, and which so constantly invite the cupping-glasses, and numerous other local torments. Nothing is more clear to me, than that, without the most complete attention to the form of evidence previously recited, our efforts to succour our fellow-creatures will prove abortive in nineteen cases out of twenty: at least the following forms of diseases will altogether be confounded without it, viz. the active and passive * phrenitis, the active and passive ophthalmia, the active and passive hæmorrhagies, the active and passive rheumatism, the acute and chronic catarrh, together with active and passive inflammations occupying different parts of the system.

We are altogether indebted to Dr Brown for applying this department of science to medicine, viz. the philosophy of evidence. The false

* Exemplified in typhus.

falſe ſpecies of philoſophy which has hitherto been applied to our profeſſion has been in no department conſidered by this author with greater attention than the part we are at preſent engaged in. This philoſopher and phyſician appears to have ſeen in its juſt light the application of ſophiſtry to medicine; but in no department, ſays he, is it more reprehenſible than in this inſtance, as it is pregnant with deſtructtion, and calls loudly for amendment.

The evidence which he admits of, is the evidence inculcated by Bacon, and adopted and applied by Newton; its denomination has been given. The invaluable precepts it is fraught with, and the ſucceſsful cure of diſeaſe it affords, are too numerous to need a recital. The conſequences to which the neglect of it leads, caſes of actual practice will beſt inform *.

CHAP.

* See Appendix.

CHAP. VII.

An Examination of NOSOLOGY *on the Principles of Philoſophical Arrangement.*

PHILOSOPHICAL arrangement ſignifies the claſſing of phænomena by their real qualities and relations. The qualities which direct to philoſophical arrangement differ in every department of nature. They ſhould be obvious, uniform, and univerſal *.

Notwithſtanding the deception which unavoidably is found to attend the abſtract conſideration of ſymptoms, independent of the powers which create and remove diſeaſe: Notwithſtanding the evidence they give birth to is demonſtrated to be completely fallacious; for it is known to every perſon, that diſeaſes the moſt diſſimilar to each other in nature, are attended with a ſimilarity in point of ſymptoms, as is ſufficiently exemplified in the preceding chapter: Yet this is the ſpecies of evidence upon which a late faſhionable ſtudy, Noſology, reſts. This, like the Categories of Ariſtotle, is made the ſtandard to which every aſpect of miſery and anguiſh is made to conform. Its abettors admit of its infant-ſtate. But reaſon, experience, and philoſophy, point out the neceſ-

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* Profeſſor Bruce's Lectures.

ſity of anticipating its maturity by cruſhing the hydra in its cradle *.

We would not wiſh to be conſidered as withdrawing our aſſent to the importance of this ſtudy, from the puerile and contemptible conſiderations actuating a party; or from the mere verbal affirmation of any perſon, however great and juſtly weighty his authority, or reſpectable his character; if an appeal to the facts in nature did not fully ſupport us, and if a complete conviction, that it derogated from the firſt principles of philoſophy, did not lead us to affirm, that the real arrangement of nature will never be diſcovered by the obſervation of coincidences in the form of ſymptoms. Thus, wherever the ſymptoms of languor, laſſitude, the loathing of food, nauſea, vomiting, and frequency of the pulſe, concur, a foundation is laid for the belief that they imply the ſame morbid ſtate. No recourſe or appeal is made to the form of evidence previouſly recited. Accordingly we find, that diſeaſes from this notion are claſſed together; viz. the intermittent fever and typhus in the ſame order with ſynocha; cynanche maligna, with the higheſt of all phlogiſtic affections, peripneumony; ſmall pox and meaſles, diſeaſes of very high excitement, with the loweſt in the ſcale of debility, the plague †.

In

* El. Med. lxxvii.

† See Cullen's Noſology.

In all these diseases, though a striking affinity is discernible by nosologists, the most complete discrepancy obtains as to the causes producing them, and the powers removing them. But the delusion rests not here. We can perceive an equal degree of artificial classification in the junction of local with idiopathic diseases, which universally pervades the whole systems of nosology. This, however, leads to worse consequences, and to inextricable confusion both in the prognosis and cure; for by these means we shall not be enabled to determine which diseases are susceptible of mitigation only, which of radical cure. Every physician of candour will confess the universal want of success which attends the treatment of phthysis pulmonalis, for it is altogether a local or symptomatic disease. The incurable nature of intussusceptio is known to every practitioner: this likewise is a local disease; and, like many others, is always the result of neglect or ill treatment of an idiopathic affection *.

We may administer squills eternally, or any other medicine, for dropsy, whether occupying the head, chest, abdomen, or cellular membrane, if a local affection gives rise to it, viz. scirrhous liver to ascites, &c. In vain may we expect the solution of dyspeptic symptoms, and constant vomiting upon the taking of food, if a

 scirrhus

* Brown's Lectures.

ſcirrhus of the pylorus obtains, upon the principle of debility of the muſcular fibres of the ſtomach being the proximate cauſe. Does not ſcirrhus, affecting the mammæ, or uterus, or teſticle, alternately, after one of theſe in a diſeaſed ſtate has been removed, ſuggeſt to us the probability, if not certainty, of the diſeaſe being not local but general, and requiring not topical means, which ſurgeons vainly rely on, but general? The frequency of its transference to other parts, after complete exciſion of the diſeaſed parts has taken place, is almoſt a demonſtrable proof of the futility of our conſidering it in the light of a purely local affection. The common ulcus mali moris, which is relieved by P. bark and remedies of a ſimilar nature, as conſtantly is found to defeat the common topical means ſingly.

The evidence afforded by ſymptoms, we have found, leads directly to the aſſociation of phlogiſtic idiopathic diſeaſe with aſthenic; nay, the higheſt form of the former with the loweſt of the latter. We have ſeen, that it reſts not here; that it leads directly to the junction of local with idiopathic diſeaſe.

It is needleſs to ſpend any more of our time in reprobating a doctrine of our profeſſion altogether founded upon falſe principles, warranted by nothing, unleſs it be conſidered as an Index or Dictionary of reference. However, it is much

to be lamented, that the diſtinction of local from idiopathic diſeaſe, which noſology altogether confounds, is not more complete, and the powers operating upon the living body more accurately analized and attended to by phyſicians. By this means they would be enabled to diſcover the real relations of theſe powers as obtaining in nature, and the preciſe nature of idiopathic diſeaſe and its modified aſpects. It would lead us to avoid all vague and obſcure reaſonings, which are the reſult of incomplete analyſis, and to treat our art upon principles truly ſcientific. The period of hope, and that of deſpair, would from hence be taught. But, on the contrary, being remiſs in this diſtinction, and in the analyſis we have ſo repeatedly mentioned, leads us to treat a perſon upon the ſame principles who falls into palſy, apoplexy, or epilepſy, from a local cauſe, either by a ſteatomatous or bony excreſcence preſſing upon the brain; as if a perſon became epileptic from a debilitating cauſe, or cataphorous from an effuſion or plenitude of blood in the veſſels of the brain.

CHAP. VIII.

An Attempt to ſhew the Application of the NEWTONIAN AXIOMS *to* MEDICINE.

THE great importance of Sir Iſaac Newton's axioms, in all the ſciences where material nature is the ſubject of contemplation, is too univerſally received to need any particular notation in this place. Their application, however, appears not to be confined to this aſpect of nature; for they have been extended to the ſciences which have a reference to intelligence, and particularly to that aſpect of it which regards man's intelligent and moral faculties. This extenſive range of nature which they take, occaſioned the denomination of "univerſal axioms of nature*."

The immortal Bacon appears to have laid the foundation, in his *Novum Organum*, of theſe uſeful directors of induſtry and genius.

We ſhall examine them in the order which they aſſume in the *Principia*, and in the moſt brief manner.

FIRST AXIOM.

The cauſes only that are true, and ſufficient to explain phænomena, are to be admitted into any ſcience †.

THE number of cauſes which have been conſidered by phyſicians as neceſſary to explain the

* Bruce's Firſt Principles of Philoſ. † Newt. Princip.

the phænomena of diſeaſe, has been almoſt infinite. The denominations of *prediſponent*, *exciting*, and *proximate cauſes*, are familiar to every ſmatterer in medicine; nay, internal and external cauſes have been ſuperadded to this group of unnatural diſtinctions *.

Nothing is more clear, than that phyſicians have been too implicit copyiſts of the Ariſtotelian philoſophy in this department. The moſt complete reſemblance obtains between this diverſity of cauſes and the Categories of Ariſtotle, under which he ranged all knowledge.

That nature does nothing in vain, nor employs a multiplicity of cauſes to produce an effect when a few will, is the language of true philoſophy. How diſcrepant to it is the recital previouſly given?

Previous to the application of Lord Bacon's philoſophy to phyſics, the moſt complete analogy obtained between the language of philoſophers and that which at preſent is held by phyſicians. A multiplicity of cauſes were conſidered as neceſſary to explain any of the phænomena of nature. The experiments, however, inſtituted by Sir Iſaac Newton to prove gravitation, have all one tendency; they all contribute to eſtabliſh the object. Previous to this period, we heard of nothing but the abſtractions of Des Cartes. We heard of Nature's abhorring a vacuum; of

* El. Med. Brun. lxix.

of planets being held in their orbits by the power of vortices, &c. Thus a multitude of caufes was introduced into fcience, more than were fufficient to explain the phænomena of nature. When we furvey the particulars leading to any law, we find it unneceffary to bring more caufes than what we can account for: it is needlefs to introduce more, if the facts on which the law is founded are accurately analized.

Till lately, however, no attempts have been made by phyficians to apply Newton's axioms to the profeffion. This affertion is verified by an appeal to the conftant language of phyficians.

For, as we have had occafion before to obferve, predifponent caufes, exciting caufes, proximate caufes, nay, internal and external caufes, to ufe the words of a celebrated Englifh political writer, "dance thro' their works in all the mazes of meta-"phorical confufion *." Like the inftruments ufed by phyficians to remove difeafe, and which we have attempted to fubject to the teft of analyfis, no refemblances have they difcovered in the powers creative of them; though the moft complete coincidence takes place in all thefe unnatural diftinctions; though a general operation is difcernible in each feparately, and in all combined together. The application of this invaluable precept to medicine was difcovered by Dr Brown, which his Commentary on the doctrine of Predifpofition,

* Junius.

difpofition, inculcated in his Text-book*, will evince to any perfon the leaft converfant in philofophical inquiry.

The caufe he affigns is one over all; viz. a variation in the degree of excitement. A certain given degree conftitutes health: Every increafe or diminution of that degree forms tendency to difeafe: And when the increafe or diminution arifes to a certain height, its confequence is actual difeafe †.

This propofition he has demonftrated, by proving, that all the powers acting upon the human body operate by producing excitement in the variety mentioned; and, in the difeafed ftate, or tendency to this, that the remedies operate by diminifhing excitement when exceffive, and increafing it when deficient ‡.

This was bringing the matter to a degree of fimplicity that the ftate of phyfic, diftracted and confufed by the multiplicity and difcrepancy of the caufes affigned, could not give the moft diftant hopes of.

This propofition applies not only to animal but vegetable life. It has therefore laid the foundation of a fcience which may be denominated the *fcience of living matter*, comprehending every modification of life on this terraqueous globe. Never was the axiom of Newton applied with more

* Elem. Med. Brun. † Ibid. xxviii. ‡ Ibid. xxix.

more completeneſs, correctneſs, and extent. The exciting powers operating upon vegetables are ſome of thoſe which operate upon animals. They are, Air acting as a ſtimulus from its purity; a certain degree of heat producing the ſame effect; and moiſture. When theſe are applied to a vegetable in a certain degree and proportion, they occaſion its healthy ſtate, by producing that degree of excitement which health requires. In higher or lower degrees, they give proportional increaſe or diminution of excitement; and therefore tendency to diſeaſe or death. Nothing more is neceſſary to vegetation but a proper application of thoſe powers. The application is made by filtration to the root of the vegetable. This effect is accompliſhed by the earth, ſometimes alone, oftener aſſiſted by certain manures. When the earth is in a certain ſtate of poroſity, the powers we have mentioned, eſpecially heat and moiſture, are conveyed to every part of the root, in ſuch a manner as to give the ſuitable degree of excitement. But when the earth, as a filtrum, is either too patulous in its pores, or not ſufficiently ſo, the powers are applied in proportional exceſs or defect. And hence will ariſe the morbid or deſtructive conſequences we have mentioned; and it is the uſe of different manures to correct this fault in the communicating filtrum *. All the

* Brown's Lectures.

the facts in agriculture, as practically underſtood by the moſt experienced farmers, have, upon careful examination, been found applicable to this propoſition, and to afford demonſtration of its truth.

The errors hitherto in farming, as in medicine, have originated from two ſources, empiriciſm and falſe philoſophy. They have centered in an idea, that vegetable life depended upon the quality of the filtrum, whether as earth or manure: hence there has been no end of their expreſſions about the ſalts of the earth, the ſalts of the manure; the oils of the earth, the oils of the manure, &c. But theſe have no more ſhare in the cauſe of vegetation, than the quality of the ſimple ſolids or the fluids has in that of animal life. They are equally, therefore, to be rejected, from the conſideration of the cauſe of the one modification of life, as acrimony, viſcidity, and tenuity of the fluids, and corruption of the ſolids, are inadmiſſible in the cauſe of the other modification of life *.

We now ſee, to the great range over nature which this new ſcience embraces, that the axiom of Newton is completely and adequately applied. We have now attained one cauſe of life: and when we compare the ſimplicity of it with that aſſigned as the cauſe of motion in the ſolar ſyſtem, and

* Brown's Lectures.

and with the imperfect idea which chemiſtry offers of the inteſtinal motion in ſmall particles of matter, we are ſtrongly tempted to conclude, that, inſtead of variety and complexity, the utmoſt ſimplicity obtains in every department of nature.

SECOND AXIOM.

That ſimilar effects are to be aſcribed to ſimilar cauſes *.

THERE cannot be a more uſeful leſſon held forth to the ſtudent of nature, than that which at preſent demands our attention. That this axiom has been altogether neglected in medicine, till brought to light by our author, is true: nay, its application to natural philoſophy was overlooked for 2000 years, and required all the ſtrength of mind of a Bacon, with the ſingular ſagacity of a Newton, to apply it to this department of nature. A minute recital of the circumſtances which gave riſe to it, is foreign to our purpoſe. It is neceſſary, however, to obſerve, that when the laws of gravitation and motion were eſtabliſhed, it was by trying a number of experiments on familiar bodies. Thus, Sir Iſaac Newton found, by a copious induction of experiments on familiar objects, that all bodies fall to a common centre;

* Newtoni Principia.

centre: this suggested to him the necessity of examining distant objects by the same rule. He necessarily began to think that this power prevailed at the greatest distances we can reach from the earth: Why may it not reach as high as the moon? If the moon, says he, be retained in her orbit by this power, why may not the primary planets be also carried round the sun by the same power, and retained in their orbits by the same law? If this is the case, the secondary planets must be regulated by the same principle in revolving round their primaries. These are the steps which the illustrious Newton pursued. We shall as briefly as possible endeavour to ascertain their application to the profession of medicine; and we cannot elucidate the matter more clearly than by taking a retrospect of the steps which our author embraced, in forming one of the greatest discoveries which the history of philosophy furnishes. It is on this axiom of Sir Isaac Newton, that the chief excellence and beauty of his doctrines rest. In no department of the science of nature, I will venture to affirm, is the analytic plan more clearly evinced than this. It was not, however, till near 20 years being engaged in the study and teaching of every department of medicine, that he ventured to pronounce the medical tenets to be involved in hypothesis, replete with sophistry, incompatible with truth

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and philosophy, and highly baneful and pernicious in the practical precepts immediately resulting from them. It was not till the elapse of the period previously noticed, that he ventured to apply the Newtonian axioms to medicine, and ascend to the discovery of nature's laws in the animal œconomy. He followed precisely the same steps which Newton did in the discovery of universal gravitation: for he instituted accurate observations and experiments on diseases, both phlogistic and asthenic, to which he had been subjected. He discovered that the causes of the one aspect of disease were the remedies of the other, and *vice versa*. He began to conjecture, that this fact was not of a limited and solitary nature; though the different external forms of disease were, like the difficulties which occurred to Newton in estimating the force of gravity at different distances, at first seemingly unsurmountable. He, however, soon found, that the external appearance of disease, independent of the evidence of cause and effect, gave as fallacious a ground for judgment to the observer of nature, as the apparently retrograde, progressive, and stationary appearances of some of the primary planets to the astronomer.

He at length perceived the perfect inessentiality of these appearances to the formation of his large induction. He now saw, with additional rays of light,

light, the foundations on which phyſicians have erred in both reaſoning and practice. In ſhort, a rigid obſervance of the ſecond Newtonian axiom, led him to that juſt, though laconical expreſſion, *Noſologia delenda*.

Theſe regular advances afforded him only reſting places. For, led by the faithful hand of analyſis, he ſurveyed every diſeaſe, both phlogiſtic and aſthenic, and every particular involved in them. The progreſſion was performed in the moſt deliberate manner, till he ultimately arrived at the moſt extenſive induction that perhaps ever obtained in ſcience, viz. That there are only two forms of idiopathic diſeaſe.

The nature of his ſubject led this author a ſtep further in the ſimplification of cauſe and effect, than had been made in any other department of knowledge. He found, in medicine, that the whole phænomena of life might be reduced to one ſimple cauſe, the ſtimulant operation of certain external powers applied to a certain property of living bodies, which he denominated their *excitability*. He found, that this cauſe was always the ſame in kind, in every ſtate of the living ſyſtem *, viz. that it was always ſtimulus operating upon the excitability. And, when he came to inquire how the phænomena of health and diſeaſe were explicable as effects flowing from this

* See the 1ſt, 2d and 3d pages of his Elem. Med.

this caufe, he found that it was only a variation of it in degree that produced the difference in the effect; that the caufe was ftill excitement, or the refult of the operation of the exciting powers upon the excitability; and that the effect was the production of the feveral phænomena of life, fenfe, motion, intellectual operation, and paffion. He perceived, that thefe, as the effect, always correfponded in degree to a proportional degree of the caufe: that health arofe from a given degree; and predifpofition to difeafe, or actual difeafe, from an increafe or diminution of the caufe, in degrees always exactly proportional. The proofs he has brought of this propofition through the detail of the work, have eftablifhed its truth in the moft complete and fatisfactory manner: And the utility of its application is eftablifhed beyond a poffibility of doubt, by the moft unexpected and furprifing fuccefs in the feveral cures fuggefted by the doctrine. He has, therefore, moft indifputably carried the axiom of Newton to the higheft degree of fimplicity poffible in nature; and thereby made an improvement that was hardly expected in any department of knowledge, and leaft of all in medicine.

It may be deemed unneceffary to confider the application of the third axiom to our fubject, as the precepts contained in it are apparently involved

volved under the two firſt. But though an imperfect ſurvey of it would unqueſtionably lead us to conſider it only as a conſequence of the former; yet a more full diſcuſſion, and more complete application of it, will ſhew it to be of the utmoſt conſequence in the philoſophy of medicine.

THIRD AXIOM.

That thoſe qualities which belong to all individuals in our power to make obſervations and experiments upon, ought to be accounted the univerſal properties of all ſubjects of the like kind.*

NUMEROUS inſtances of the beneficial influence of this axiom, when applied to natural philoſophy, might be adduced; but ſuch examples are ſuperfluous, and foreign to our ſubject. The duty incumbent upon us to perform, is ſimply the application it admits of when extended to the improvement of the healing art. From this view of it we might ſhew, that ſeveral of the diſeaſes, the cauſes of which have hitherto been involved in darkneſs, verbal diſputation, and ineffectual attempts to the elucidation of ultimate facts, may be relieved from the gloom of apparent obſcurity, extricated from the labyrinth of verbal ſuperfluity, and placed in that train of inveſtigation in which truth only can be detected.

But,

* Newtoni Principia.

But, the wanderings of physicians from this valuable rule, have been as complete as from the two first. Indeed, their reasonings would argue a total unacquaintance with its import; and their universal practice amounts to a direct proof of such ignorance.

The great Sydenham appears to be the only medical author who had any perception of the use of this axiom; and the reformation which took place in medicine by his efforts, would appear to be the result of his knowledge of its importance. The antiphlogistic pathology, which he had the merit of introducing, and the pernicious tendency of the phlogistic pathology, and alexipharmac practice founded on it, which he had occasion to observe in several diseases, led him by degrees to take an improper view of the import of this rule, and ultimately to lose sight of it altogether. For we find in him some hints relative to the arrangement of diseases according to symptoms, which the principles laid down in this and the preceding rules exclude altogether. Sydenham found, that the practice suitable to remove rheumatism and peripneumony removed other phlogistic diseases. Thus far he appears to be impressed with the principles held forth in this axiom. But when the same debilitating practice was applied to diseases of actual debility, his desertion of this useful rule is glaring. He

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manifeſtly made his experiments, not upon diſeaſes of the like kind, but upon diſeaſes the moſt diſtant in their nature from each other that can be conceived. Thus, fevers, aſthma, epilepſy, palſy, apoplexy, hyſteria, gout, and ſeveral diſeaſes of a ſimilar nature, have been treated upon the antiphlogiſtic practice inſtituted by this author.

However the followers of Dr Staahl, Boerhaave, and Hoffman, have differed in words, their practice has uniformly been the reſult of the phlogiſtic pathology of Sydenham, and of complete inattention to the precepts dictated by the third Newtonian axiom.

It will not therefore appear wonderful to the unprejudiced reader, that an effort to apply ſuch a rule to the profeſſion ſhould meet with the moſt virulent oppoſition; although it has no leſs an object in view than the ſucceſsful treatment of health and idiopathic diſeaſe.

We ſhall firſt of all obſerve, that the application of this axiom to medicine lays the foundation of the practical rules ariſing from the Brunonian principles. This is the rule which led our author to the inſtitution of philoſophical evidence for the purpoſes of the profeſſion, and to the complete analyſis of all the powers operating upon the living body. By a ſteady obſervance of the principles laid down in this axiom, he diſcovered an affinity between plague and idiopathic

dropſy, as well as between catarrh and the diſtinct ſmall-pox; between the confluent ſmall-pox and gout, as well as between peripneumony and mania. And riſing gradually from ſuch partial to more general aſſemblages, he came at laſt to diſcern, that wherever either exceſſive vigour or debility prevailed in any concourſe of ſymptoms, they conſtituted a caſe of diſeaſe preciſely the ſame as all other caſes where ſuch increaſe or diminution of the healthy vigour occurred. Nay, led by the ſame faithful thread of diſpaſſionate attention to nature, through the labyrinth of medical ignorance, empty diſtinction, and falſe aſſertion of facts, he, in fine, attained his univerſal propoſition, "That there are only two idiopathic diſeaſes; and that even theſe are not produced by powers different in kind, but, as we have formerly obſerved, different only in degree." And from thence he drew his broad concluſion, That all the ſtates of whatever can be called life in the univerſe, were owing to this difference of degree. To this, reſpecting diſeaſe, nothing can be added, but that ſometimes a derangement of the ſolids, as ſimple and inanimate, or a fault of organization, may occur. This may ſometimes affect the general ſyſtem: but whether it does or not, it muſt be conſidered as different from idiopathic affection in its cauſes and mode of cure; theſe being local, while thoſe of diſeaſe are general.

But how complete have the aberrations of

phyſicians

physicians been from this rule? how unobservant of its wide and vast illumination? They all find the absolute necessity of paying the most nice attention to temperature in the small-pox; inattention to which is found to aggravate all the symptoms, increase the phlogistic diathesis, and eventually to endanger a confluent state of the disease. They have likewise found, that a person labouring under a phrenitic synocha, and exposed naked to that degree of temperature which constitutes what is termed the *freezing point*, was thereby completely relieved of his disease. These, and such like, are facts of an unquestionable nature. And it is our business, therefore, conformable to the dictates of philosophy, not to view them as of a solitary nature, but as of extensive import. It is incumbent upon us to institute experiments and observations on all subjects of a similar nature. It is our duty in this dilemma to reason like Newton; and the following would be the result: "That from similar causes however different in their external appearances, the effects must be similar." By this rule it is found, that the phlogistic catarrh and measles are diseases similar in their nature to small-pox and phrenitis; in both of which, facts are adduced to prove, that cold, applied to the surface in a proper degree, has been an effectual cure.

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The measles is a manifestly phlogistic case of disease; that is to say, upon the same footing as peripneumony, rheumatism, inflammatory sore-throat, and so forth. For all these, since the days of Sydenham, bleeding, purging, other evacuations, cold, and abstinence, have been found the most effectual, nay, nearly the only remedies; for our author has added others. Yet though the measles is nominated among those diseases, and in other respects treated like them, cold, however, has been studiously avoided in its cure; nor have the other antiphlogistic remedies, unless towards the end of the disease, been much urged. In short, we can discern a considerable trace of the exploded alexipharmac practice still prevailing with respect to the measles. The very language of the striking in of the eruption from cold, and keeping it up by heat, is still formally employed. The cause of this exception was the consideration of the catarrhal symptoms.

Catarrh was supposed to be occasioned by cold; and therefore, if any indication arose from that supposition, it was to cure the disease by heat.

The detection of the falsehood of this hypothesis was the last part of the Doctor's discovery. To which he was led by the following case.

He laboured under a severe hoarseness, with other

other ſymptoms of catarrh. In the number of theſe was a ſenſation of cold, and exquiſite deſire for a hot ſituation. He knew not what to think of this, for want of facts of his own, or information from others. In this uncertainty, he continued to gratify his feeling; and, in a very hot ſeaſon of the year, uſed a chamber that few perſons in health could have borne in the cold of winter. He ate full meals of animal-food, and took ſuch a portion of drink after ſupper as proved ſtimulant, without incurring the riſk of inducing what he calls indirect debility from its exceſs. He alſo walked under the fervent heat that prevailed at the time. But, while he continued this plan of management, one day, as he was walking, he perceived his hoarſeneſs manifeſtly increaſe; of which he was ſenſible, even before he made trial of the truth by making an effort to ſpeak. This effort convinced him, that the ſtimulus of heat, and his exerciſe, had increaſed the complaint. He inſtantly perceived the amount of the fact, and intuitively took in the whole extent of its application. His fixed concluſion, without any further heſitation, was, that ſtimulants of every kind had produced this obſtinate complaint; and that evacuants, and every other mode of debilitating his ſyſtem, would prove the cure. He therefore forſook fire, betook himſelf to the upper ſtorey of the

 houſe,

houſe, contrived a ſtream of air to play upon him aſſiduouſly, confined his diet to vegetable aliment, and chiefly in a fluid form, abſtained from ſtronger drink, and ſubſtituted for it plentiful potions of water. The reſult of the cure was, that a hoarſeneſs which had remained for ſix weeks, and proved exceedingly diſtreſſing to him, and the more ſo, that he had occaſion to ſpeak an hour every day publicly in his claſs, diſappeared in three days. He has tried the ſame cure ſince upon himſelf and others with the ſame effect; in the number of whom I have had in my own perſon repeated proofs of the validity of this important diſcovery. Its importance goes beyond its application to catarrh. It has, like a mathematical propoſition employed in the chain of proof in others, been transferred to the pathology of the meaſles. In conſequence of which, the father of my excellent and worthy friend Dr John Wainman has, in an hundred inſtances, found, that whatever effect cold and other antiphlogiſtic means have in the ſmall-pox, they produce preciſely the ſame in the meaſles *. With this author, facts ſo ſure, always leading to others, crowd in upon him; for he has hence alſo overthrown the doctrine of cold being ſtimulant.

The diſcovery of the nature of catarrh, and its application to unfold the nature of the meaſles, and

* See his El. Med. ccxxi. cxxxiv. to cxxxvii. cccxlvi.

and to give a complete confirmation to his previous difcovery of the operation of cold, as being always debilitating, and in exact proportion to the degree, in which it is applied, where heat and other ftimulants, fucceeding to it, or alternating with it, do not interfere to produce an oppofite effect, was among his laft. Among his very firft was a ftill more important one. For tho' every member, compofing a part of a whole, has its ufe as fuch, there are fome more effentially neceffary than others. Every propofition in Euclid is of fome ufe, if not in itfelf, at leaft by entering into others, and making a ftep in their reafoning, in forming a link of a continued chain of truth. In a fimilar manner to thefe are we to eftimate the facts that compofe any fyftem of true doctrine. For though many of the propofitions of Euclid have the ufe which we have juft now remarked; the 47th propofition of the firft book is of ftill higher importance than any other; becaufe without it the chain of reafoning would not only have been interrupted, but not one further link would have been added; and therefore the fubfequent parts of this elementary fyftem of truth would never have been difcovered; and all the facts flowing from them, fo neceffary in their application to mechanical philofophy, would never have

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arifen to the improvement of this or any other department of knowledge.

The difcovery we are going to fpeak of is that of the nature of the gout.

Many treatifes, efpecially during this century, have been wrote upon the gout. It is a difeafe chiefly affecting the rich and luxurious, who are the leaft difpofed to bear pain, the moft anxious to be freed from it, and therefore always ready to reward every pretenfion to fuperior knowledge in the nature of the difeafe. But while the encouragement for any improvement in the cure was fo certain, and the profpect of credit and emolument, the great fpurs to all human induftry, fo much within fight, that, if the ftate of the profeffion had been in any condition to make improvement, the gout long fince muft have been very well underftood, to the great benefit of human fociety, and generally of the the moft valuable part of it; no advance, however, has been made in the knowledge or cure of the difeafe. Like many other difeafes, as phyficians themfelves confefs, and like many more, whether they confefs it or not, the gout has remained an *opprobrium medicorum.* But the matter has not refted here; for in this difeafe, as well as in all the reft, of the nature of which phyficians were ignorant, fo erroneous have the theories been, and fo baneful the

methods

methods of cure deduced from theſe; that, in place of doing ſome little ſervice, which was the moſt that, with all their intereſted arts, any of them could pretend to, they have in every caſe done much miſchief, and increaſed the cauſe of the diſeaſe, by the practice which they employed for the cure of it. Among the numerous writers on the gout, whether monographical, ſyſtematical, or, laſt of all, noſological; though they have had copious verbal differences, and apparent theoretical ones; their treatment in the cure has been uniformly the ſame: which, according to ſome, is to bleed; according to more, to uſe every evacuation except bleeding; but, according to the greateſt number, to truſt the prevention of fits wholly to low diet, and every other part of the antiphlogiſtic regimen. As the greateſt number of diſeaſes to which mankind are liable, are thoſe depending upon debility; and as the only method of cure hitherto employed by phyſicians, is debilitating in the higheſt degree; the inference from theſe two facts is, that the ordinary practice of phyſicians is, to produce diſeaſes where debility did not exiſt; to increaſe them as often as they depend upon it; to embitter the lives of mankind; and, ſooner or later, according to the degree of the pernicious practice, to ſend them abruptly to their everlaſting ſtate. All the plagues of human life united have never at

any

any time produced fo much devaftation in the human fpecies as what is called *phyfic* alone.

Amongft the various evils which have arifen, and ftill arife from it, it is only in one inftance that good has been produced.

Dr Brown, in the 35th year of his age, was for the firft time feized with a fit of the gout. He was told by a great leader in the profeffion, that, as he was of an uncommonly vigorous and healthy conftitution, and " as *plethora* with concomitant " vigour, *in confequence of ingeftion* prevailing " over *egeftion*," was the undoubted caufe of the difeafe, porridge and other vegetable matter employed as aliment, with a ftrict abftinence from every form of animal-matter, promifed almoft a certainty that he would never have another fit. The Doctor had long before this been difatisfied, and even difgufted, with all the theories in phyfic *. But he was not yet convinced that a world of men would combine to deceive him with their facts. He took this, therefore, as a fact; the refult of much experience, and accurate obfervation. He had hitherto almoft never experienced pain, and the pain of the gout was rather too exquifite for the firft trial of his patience. Betwixt his diffidence in the theories, and fome reliance on the facts of medicine, he refolved to rifk the experiment. For the courfe of

* See page 1ft. of his Preface to his Elem. Med.

of a year, he made water his only drink, and pure vegetable matter his only food. The event of this regimen was, four fits of the gout, each of them of six weeks continuance, before he had any uſe of his affected limb; and indeed, through the whole year, it was but a very ſhort time that he had the free uſe of it. After this experiment, his diſtruſt of medical facts commenced. He thus reaſoned with himſelf: If plethora and vigour were the cauſes of this diſeaſe, occaſioned by repletion proving an overbalance for evacuation, why did it not happen ten years ſooner? eſpecially as he could recollect, that, both at that time, and before it, and after it, his indulgence in food and drink had been greater, and his exerciſe leſs, than they had been for a conſiderable time before this attack of the gout. A thought which placed the theory and pretended fact, by which he had been led into ſo much torture, in a ſufficiently ridiculous light, was the following: If a man gets too much blood, and too much vigour, by exceſs of aliment, and a deficient habit of exerciſe, at any period of his life; ſuppoſe it 25, will the fulneſs, ariſing from that mode of living, ſtill meet him after that its cauſe has been interrupted? and when the interruption of the fulneſs has taken place, ſuppoſe for a full year, will the effect all this time remain lurking in the habit? or, after a man has

abſtained

abſtained from meat and drink for a week, ſuppoſe him before that time to have overcharged himſelf with both, will he ſtill remain in the ſame debauch? will he find his ſtomach and ſyſtem of veſſels ſtill overloaded with food and chyle and blood? and, if he is a young man diſguſted with his ſtudies at the medical college of Edinburgh, will he ſtill be running about the ſtreets breaking lamps on the eighth day after his intoxication? We apprehend that the bulk of our readers will not be of that opinion. This, however, is a good example of repletion producing plethora at a diſtant period; and plethora producing the gout, or any other diſeaſe of the ſame ſtate of the ſyſtem upon which it ſhall be proved that the gout depends. The probability with reſpect to the young gentleman is, that the conſequence of a week's abſtinence from eating and drinking, might be death, at leaſt a complete ceſſation of that furious activity that could enable him to run about doing miſchief. If ſuch would be the effect of plethora, corrected by a week's abſtinence, ſurely it much leſs can be ſuppoſed, did this philoſopher reaſon with himſelf, that plethora could ſurvive its cauſe for ten years, or even one year, or half a year, or an inſtant of time. In the proſecution of the beſt medical reaſoning, he had been obliged not to acquieſce in, but to be doing with, ſuch logic

as

as the nature of the thing in its prefent ftate would admit of.

He now began to fee that he muft give up the logic, the philofophy, and the facts, of phyfic altogether; that he muft forget all his reading and all his knowledge; and, if he did not burn, as Paracelfus did, all the books that came in his way, he muft fhut them all, and feal each of them with feven feals, till he faw what he might make of his own thoughts.

The firft thing that ftruck him in his future plan of purfuit was, that an effect could not furvive its caufe; that the fame caufe could not produce different, much lefs oppofite, effects; and, that the fame effect could not arife from different, much lefs oppofite caufes. He perceived, that the human machine was nothing in itfelf, but in conftant and momentary dependance upon a number of powers, perfectly diftinct from it, the operation of which was neceffary to its exiftence. His intercourfe with the means of life, and his obfervation upon thefe, taught him, that men who are well nourifhed by food and drink were ftrong; and thofe who had a fcanty allowance of either, but efpecially of both, were weak in all their faculties both of body and mind. He had obferved, that farmers in Scotland in good circumftances, were much ftronger than their labourers; and that farmers in England

land in proportional circumſtances, were as much ſtronger than them. He had been told, that 12 ſeapoys in Eaſt India, could not do the work of one Engliſh ſervant. He had been informed, that, in ſome counties of England, the farmers would not engage their ſervants unleſs they undertook to be very dextrous in ſwallowing the moſt nutrient animal-food. He had diſcovered the field-work in Scotland was tardily carried on by the labourers, eſpecially the reapers, whoſe labour is the ſevereſt of all; being ſupported by nothing but porridge at the riſing and ſetting of the ſun, and coarſe barley or oat bread diſtributed to them, not in exceſſive proportion, at dinner, along with a plentiful proportion of broth, conſiſting of nothing but water and purgative fermenting vegetables. Nay, at the very time in which I write this, a farmer came to the graſs-market of Edinburgh, who, after he had made his bargain with the reapers for the ordinary hire, at laſt told them that he was to give them no ſuppers, becauſe it was not ſpecified in the bargain. It had never been dreamed of before, that, after the miſerable allowance of meals thro' the day, any perſon in his ſenſes would cut off the ſupper of porridge. Indeed, immorality could not be the man's motive. His conduct flowed not from œconomy: It was the reſult of the ignorance and ſtupidity of a fool, who thought

that

that labourers could go through the greateſt and moſt tedious of all human labour, without the ſupport of food. The innovation, however, was quickly underſtood. The reapers knew their right. Uſe and wont, a phraſe in Scotland for perpetual cuſtom, was pleaded without loſing much time upon reaſoning. The extortioner with an hundred reaping hooks was immediately ſurrounded; and was in the faireſt way to be reaped himſelf, and to have all below his head left for ſtubble. The guard of the city of Edinburgh was ſent for, but they were ſent for in vain. They either would not quell the inſurrection, from partiality to their Highland friends; or they could not, either from a defect in their military diſcipline, or a degeneracy in their ſpirits in conſequence of their long reſidence in the low country. No leſs was neceſſary to ſettle the effects of this infringement upon the rights of men and upon the Brunonian doctrine, than a regiment of ſoldiers from the caſtle.

He had further perceived, that meat and drink only were not ſufficient to ſupport animal-life. He found other circumſtances, which he has enumerated in the 6th, 7th, and 8th, par. of his Elements, without any one of which he could ſee that life could not be ſupported for the ſhorteſt ſpace of time. He next reflected, that a quantity of medical traſh ſtood in the way of his con-

clufion. After getting upon the fair road, in which nature's operations refpecting animal, and therefore every mode of life, were to be profecuted, he confidered thefe with great compofure as fo many Jacks-and-the-Lanthorn, that had mifled him from the right path into all the bogs and quagmires, over all the precipices, of delufion and error. He regretted the time that he had loft in the tractlefs wildernefs of falfe fpeculation: But he confoled himfelf with the fatisfaction of finding the truth at laft. The fun of light arofe in his hemifphere, and difplayed all the objects around him in their true colours, and figures, and ftates. By the influence of this newly difcovered horizon, he beheld the phantoms of innate powers of the living fyftem; whether denominated *vires medicatrices naturæ*, or increafed action of the animated fyftem, or reaction, or critical days, or intermittent types, or irritation fuppofed to arife from fpafm, or plethora, or mobility; as fo many hobgoblins, which had led him a tedious, painful, fruitlefs, and malicious dance.

The fame light difclofed to his eyes, other phantoms, which had formerly appeared to him more like natural figures, but that now ftood forth in all the deformity and horror of infernal dæmons. Thefe were fymptoms as producing diagnoftics; fymptoms as forming the new department of nofo-

nosology; symptoms as estimated without regard to what they came from, or what might become of them. The sun-beams of truth exhibited all these appearances as a number of monstrous chimeras, to which there was no resemblance in the simple and just productions of nature, but the illusory abortions of the visionary and disordered heads, to whom the slightest glance of the beauty, uniformity, comeliness, proportion, and symmetry of nature, had been denied, and from whose eyes the book of life had been decreed to be shut for ever.

He now perceived, and has since demonstrated, that all the pillars, upon which the fabric of physic had stood for ages, must be tore up from their foundations, the rubbish cleared away, and the doctrinal as well as practical part of the profession placed upon a solid basis.

To return to the subject of the gout: After the former reasoning with himself against the commonly supposed cause and the method of cure of that disease, he observed, that the stimulant powers necessary to the support of life, could be applied in such a degree as to impair or even destroy life, in a short space of time. This is the noted effect of excess in drinking: And the deaths that stand on record, as produced by intemperance in eating, are so many proofs of the same effect, arising from excess in that mode of

 stimulus.

ſtimulus. Exceſs of paſſion, exceſs of exerciſe of the intellectual operation, exceſs in corporeal motion, all tend to the ſame event. Diſeaſes and ſudden deaths have originated from every one of theſe modes of exceſs in the uſe of the ſtimuli neceſſary to the ſupport of life. He extended this obſervation, and found, that the ſame effect that could be produced by a high exceſs of the ſtimuli in a ſhort ſpace of time, would as certainly ariſe from a more moderate exceſs in a longer ſpace of time. In this manner he diſcovered, that death is as unavoidable a reſult of the ſtimuli neceſſary to the production of life, as life itſelf*. This exceſſive uſe of the cauſe of life, he obſerved to be a ſtate of debility: And, becauſe there is a ſtate of debility depending upon deficiency of ſtimulus, which is properly denominated *direct*, he called it *indirect* debility. All this view applied to the diſeaſe in queſtion. He conſidered himſelf, ſome years before his firſt fit of the gout, as ſtronger and more full of blood than when it happened. Though he ſeemed ſtronger than many others, and perhaps was ſo, he did not judge of himſelf by that rule. It was a compariſon of that kind that miſled phyſicians to aſſert, that the gout was a diſeaſe of ſtrong and robuſt perſons. It is ſo: But they ſhould have obſerved, that theſe ſtrong and robuſt per-

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* See his Elem. Med. xix. xx. lxi. lxiii.

fons were less so than they had been formerly; in short, compared with their former state of vigour, that they were in a state of debility.

Finding, then, that debility, not plethora and vigour, was the cause of the disease, the indication of cure arose of course. It was, not to weaken the system by antiphlogistic regimen, according to the common practice, but to invigorate it; only keeping within that excess of the means suited to the purpose, which terminates in indirect debility. Proceeding upon this cautious induction of facts, he saw before-hand, that the plan of cure he was to enter upon must be successful. And the event justified his expectation. In the course of two years, excepting two weeks, he had only one fit; which, in violence and duration, did not equal a fourth part of any of his former ones. And he was certain that he had even accelerated it by a piece of improper management, which was, intense walking, and the use of tight shoes, and taking a purge of Glauber's salts to remove an inflammatory sore throat. Now, if, what every physician of any observation at all will most readily grant, be taken into the consideration, that fits of the gout become always more frequent as the disease advances in its progress; besides eight fits, which should have happened within the two years we speak of, it is but a moderate supposi-

tion that four more ſhould have been added. At that rate, the Doctor ſhould have had 12 fits, inſtead of one that he had, in the courſe of the two years. Recollect alſo, that this was only a fourth part in violence and duration, of any of his former ones: And by multiplying 12 by 4, the effect of his tonic plan will come out to be a reduction of the diſeaſe from 48 to 1.

To ſuch certainty has he attained in the knowledge of every thing that is either hurtful or ſerviceable in the management of himſelf for the prevention of fits, that he can bring on a ſmall fit any time he pleaſes, by any one of the articles of regimen that have hitherto been depended upon as the only means of cure. Oat-meal porridge had been particularly ſpecified to him as a very proper article in diet: And he had been adviſed to depend as much as poſſible upon this meal. But, though it was very agreeable to his taſte, from his having been much accuſtomed to it in his youth; by taking porridge and ale at any time over night, he is ſure next morning of bringing on all the ſymptoms of indigeſtion, and crudity in the ſtomach, with looſeneſs of belly, that lay the foundation of a fit of the gout. And, if he does not prevent further conſequences of this hurtful article of diet, by taking his breakfaſt early, even againſt his appetite; by either premiſing or ſubjoining to his breakfaſt a pretty

ſtrong

ſtrong cordial; and even repeating that, if the continuation of the ſymptoms ſhould require it; the diſeaſe will proceed till it aſſumes every ſymptom of a formal and regular fit of the gout. There are, beſides loſs of appetite and ſenſe of crudity in the ſtomach, nauſea rapidly increaſing till it terminates in vomiting; with pain ſomewhere about one of his feet, and even evident inflammation. All this concourſe he can prevent, and, when already formed, remove, by the uſe of what he calls his *quickly diffuſible ſtimulants:* Which are, any wine that is ſtrong and ſound and free of acidity, any ſtrong ſpirit, opium, volatile alkali, and æther. There are others, which, from the analogy of their reſemblance to thoſe we have enumerated, muſt operate in the ſame manner, and therefore produce the ſame effect. They are, camphor, muſk, and ſome others that may be thought of. Finding any of the mentioned ones ſufficient, he has not yet made any trial of theſe. Drinking the vin de Bourdeaux in Leyden ſome years ago, had the ſame effect as the porridge and ale: Fruit, eſpecially apples and pears; all green pottage, eſpecially cabbage; all the ſeveral roots which are uſed in diet, eſpecially turnips; and even ſome which poſſeſs a conſiderable degree of aromatic quality, as Spaniſh radiſhes; all the legumina, except green peaſe taken in moderate quantity, with nouriſhing ani-

mal matter; and particularly peaſe-pudding, and peaſe-ſoup, have in their turn brought on fits. The ſame has been the effect of all the malt-liquors, eſpecially ſtrong ale, with a conſiderable prevalence of acidity: excepting porter, eſpecially when approaching to ſtaleneſs; for bottled porter, or any porter in which any conſiderable fermentation is ſtill going on, approaches to the effect of the other beers.

Theſe are principal particulars, which we think proper to take notice of at preſent. Suffice it to obſerve in one word, that the whole liſt of vegetable articles, except thoſe forms of vegetable matter which poſſeſs a high degree of aromatic quality, and are therefore uſed in ſmall quantity, and all ſour, fermenting, or vapid drink, are in one degree or other cauſes of the gout. With reſpect to water, the reſult of his experience is, that, in the intervals of the gout, when a perſon is in his ordinary health, water, which is of itſelf a debilitating power, if conjoined with nouriſhing animal-food is of no diſſervice; but, at any time, in a podagric diatheſis, conjoined with vegetable matter, it will add to the ſum of debility occaſioned by that kind of diet. And when the ſtomach is weak, either as preluding a fit of the gout, or implying a ſtate of indigeſtion of any ſort, pure water uſed as drink, and more certainly in perſons who have been accuſtomed

to

to generous drink, adds great force to the effect of the other hurtful powers. This conclusion is derived from the most sure induction of facts. The Doctor lived one year upon water, during his confinement to vegetable food: He lived for another year on it, when he betook himself to his tonic regimen. In this case he drunk water with his meals, and abstained from all stronger drink, without any hurtful effect; whereas, in the other case, he never used water to any extent, but with the most chilling, debilitating effect.

Infinite is the advantage that has accrued to the profession, from this well conducted scrutiny into every article of diet in ordinary use among mankind. The effects of it before, had not only been judged of at random, and therefore very false conclusions been drawn with regard to them; but such has been the capricious consequence of chance, that over-ruled this whole affair, that it has most inexplicably happened, that two general conclusions, diametrically opposite to the truth, have been the final result of all speculation on the subject. One of these conclusions was, That vegetable food, as a part of antiphlogistic regimen, and watery or no drink, have been supposed the only proper means of preventing fits of the gout; and full stimulant diet the only ones productive of them. The contrary has been proved to be the truth, by an ample induction

 of

of facts, that all future obſervation will for ever confirm and juſtify.

Beſides this account of diet in the conduct and cure of the gout, we have only to add, from the ſame authority to which we owe the former detail, that tho' vegetable matter has the hurtful, and animal the beneficial, tendency, hitherto aſcertained; yet, when the ſtomach is in its ordinary healthy and vigorous ſtate, a certain portion of vegetable matter may be uſefully conjoined with full meals of animal matter. For our author perceived, that the moſt filling and ſtimulant matter of that kind, without ſuch a proportion of vegetable, failed in producing its beſt ſtimulant effect. He felt in himſelf, and inferred from the univerſal practice in meals, that without a portion of bread, and certain other vegetable matters, ſatiety was never obtained: that there was always what, according to vulgar perception, would be called a *want in the ſtomach.* He ſtudied this affair; and the reſult of his ſtudy was, that there was a certain quality in alimentary matter which bore a certain relation to the excitability in the ſtomach *. This relation, he perceived, was a property in the alimentary matter, from its kind, not its quantity, to operate upon the excitability, and produce excitement. Such, he diſcerned, was the effect of all matter in ſo far as

* El. Med. vi. vii. viii. ix.

as it is alimentary; but chiefly of animal matter, and very imperfectly of vegetable. And hence it is, that the former is ſo well, and the latter ſo ill, ſuited to anſwer the purpoſe of aliment. But after obtaining the beſt effect that could be procured from animal-aliment, the moſt proper in kind, and adminiſtered in the moſt exact quantity, there was ſtill a ſtimulus wanting, ariſing from a different mode of operation. While he obſerved that animal aliment might be rendered ſo rich in quality, that the full ſtimulus ariſing from its quality might be obtained in a ſmall bulk, ſtill the meal would not be ſufficiently gratified without the taking in of ſome matter, which added nothing to the other operation but an effect ariſing from bulk. Eggs, for inſtance, are highly nutritive; and greater nutrition ſtill may be procured from jellies and rich ſoups: but nobody would be gratified with meals conſiſting of theſe alone. Hence he learned, that, beſides the ſtimulus of aliment ariſing from its quality, which he therefore denominated *direct*, that another ſtimulus ariſing from quantity was neceſſary: to this he gave the appellation of *indirect*. As the direct ſtimulus aroſe from a certain quality, he ſaw it required certain matters poſſeſſing that quality in order to obtain it. Theſe matters he found to be animal, poſſeſſing the quality in a high and ſuitable degree; and vegetable matters,

poſſeſſing

poffeffing it in a very low and imperfect degree. While the latter, therefore, were difqualified, as we have faid above, from affording the direct ftimulus, becaufe nothing but bulk, giving diftenfion, was requifite to the indirect, he faw that they would be fuitable enough to effectuate it, however low they might be in the fcale of direct ftimulus that they contained, or perhaps though they contained none at all. He faw it was certain forms of matter, agreeing in containing in common the quality of direct ftimulus, that anfwered the firft purpofe; but that any matter, whether its direct ftimulus was weak or wanting altogether, provided it was not difagreeable to the ftomach, would fuffice for the fecond. Of this principle, fo accurately explained and clearly ftated, the application to practice was, that vegetable matter, in moderate proportion, ought to be united with fuch a proportion of animal, as would prevent bad effects arifing from the former by the predominancy of its falutary ftimulus: that, whenever a perfon found his ftomach ftrong, and his fyftem in perfect health, he need not torment himfelf by over-anxiety to avoid excefs in the vegetable matter; and, on the contrary, that he may follow his inclination to a certain extent. But, upon the firft feeling of indigeftion, he infifts that too much caution cannot be ufed; and he contends, that the only abfolute

abſolute ſecurity is total abſtinence from every kind of vegetable matter.

In the courſe of this inquiry into the effects of all the ſeveral articles of diet, our author extended his obſervation to other parts of management. He went into the conſideration of ſleep and of exerciſe, and varied and repeated his experiments on both. Too little ſleep, under his vegetable diet, he found a moſt prodigiouſly hurtful power. The diet weakened him exceſſively, and produced the effects we have mentioned; and this weakneſs was of the direct kind. His ordinary corporeal and mental occupations proved fatiguing, and therefore alſo weakening; but this weakneſs was of the indirect kind. The former originated from inſufficiency of ſtimulus; the latter from the ſtimulus being carried to exceſs under the concomitant circumſtances, and therefore rendering the ſyſtem unfit for receiving excitement from it, by exhauſting the principle upon which all the ſeveral ſtimuli only can operate in producing excitement, viz. the excitability *. As part of the debility was of the indirect kind, ariſing from the ſtimulus of mental and corporeal exerciſe exhauſting excitability, and therefore ſuſpending excitement, a ſufficient quantity of ſleep operated by ſuſpending the ex-

* See the El. Med. ix. x. xv. xvi. xviii. xix. xxi. xxii. xxiii. xxiv.

cefs of ftimulus which produced this fufpenfion of excitement; and therefore by giving occafion to the reftoration of the excitability, and an opportunity to the exciting powers, remaining in the fyftem, to act with effect. Too fhort fleep, preventing the completion of this procefs, allowed the indirect debility to remain, in confequence of the exceffive ftimulus, exhaufting the excitability, being not fufficiently fufpended. This is the explanation of a fact that he had repeatedly experienced, viz. that fhort fleep is one of the moft powerful caufes of debility in general, and of gout in particular.

With refpect to exercife, he found, that, either when very intenfe or unufual, it alfo proved very powerful in renewing fits of the gout. It has been faid, that the firft fit which appeared after the inftitution of the tonic plan of regimen, was induced upon the occafion of his having, contrary to ufual practice, walked a great deal in the courfe of a day or two. And he has experienced, both before and after that time, that the fatigue of walking is very powerful in bringing on fits. That walking, in certain circumftances, could bring on fits of the gout, is a fact not unknown to former phyficians. But as it clafhed with another fact directly oppofite to this, which was, that indolence and fedentary life, conjoined with full and ftimulant living, was the principal circumftance that induced the gout at

firft,

first, and was therefore supposed still more certainly to renew the fits of the disease; from this seeming contradiction of effect and cause, physicians were all thrown into an inextricable perplexity; the solution of which, upon the Brunonian principles, is perfectly easy. Exercise, where habitual, and rendered safe by such habit, and never carried to an immoderate degree, upon the whole, affords a stimulus highly requisite to human health, and suited to prevent all diseases of debility, and the gout among the rest. The proper degree of it, producing this effect, depends not more upon moderation of its use, than upon a proper degree of stimulus being thrown in in the form of diet, to enable a person to endure it and be benefited by it. When, therefore, neither too much nor too little of the stimulus of food and drink is taken in; or, when any error in either of these extremes has been committed, if this has been corrected by increasing or diminishing the exercise in proportion to the deficiency or excess of the other stimulants; exercise, supporting egestion, and otherwise stimulating, so adjusted to the quantity of ingestion taking place, proves one of the most natural and permanent stimuli that can be applied to support human vigour, and prevent diseases. But the destruction of this balance, in consequence of too high a stimulus from diet constantly going on, and producing a gradual tendency to indirect debility,

debility, and a habitual deficiency in exercise, which is a means of direct debility, as implying that the proper degree of stimulus which it is calculated to give, is habitually with-held, is liable to produce other diseases of direct debility, and the gout among the rest. Hence it is that the luxurious and indolent are the principal, and almost only, victims of this and similar diseases depending upon debility, the chief and prevalent part of which is of the indirect kind. Again, when the stimulus of diet is employed in a very low degree, and that of exercise carried to its highest degree, which is a state of debility, the prevalence of which is of the direct kind; then it is that persons will not fall into the form of asthenic disease, to which the denomination of *gout* is given; but they will fall into other diseases of an equal, or even more pernicious, tendency. Dyspepsia, diarrhœa, sometimes conjointly, seldom separately, scirrhus, dropsy, or even proper fever, and such like forms of morbid state, depending upon direct debility, will be the consequence of such hurtful management. The diseases prevailing among the poor people, who are commonly starved, and oppressed with assiduous excessive labour, afford many instances of diseased state originating from this source of direct debility. This matter, therefore, placed in the light in which we have set it before the eyes

of

of our reader, will explain both the cause of the error of physicians in supposing exercise, without limitation, to be an effectual means of preventing the gout; and it will point out the occasion of their embarrassment, upon finding, that after a person has fallen into the gout, any unusual exercise will bring back fits. If exercise be properly adapted in its degree to the stimulus of diet thrown in, no disease will happen. If the balance be destroyed, as in the first-mentioned case of erroneous management, the gout will not happen, but other forms of this same kind of disease will; which is a verbal, but no real difference. In the second case, the gout will happen; implying, that a disease of debility has appeared in consequence of the means necessary to the support of life having been carried too far, with the effect of inducing debility, upon a principle now often explained, and by this time sufficiently familiar to our reader: for we must take it for granted, that, from the explanation already given, the principles of this doctrine are sufficiently cleared up, at least in so far as we have occasion to touch upon them. But as the principles of the whole are necessary to the understanding of each part; and as it is not the intention of this Essay to enter into a full exposition of it, that having been done sufficiently clearly in the introductory part of our author's work already delivered

vered to the public, and in his lectures; we must therefore beg leave to refer such of our readers, as may wish for further information, to these departments of his labour; and indeed we would recommend a diligent attention to the whole. With respect to exercise, we conclude, that uniform, equal, and gentle exercise, conjoined with the plan of regimen detailed as above, is the proper method of preventing fits of the gout; but that excessive exercise, or a sudden transition from sedentary life to a degree of it not immoderate in itself, but rendered so by abstinence from the due degree, is alone, and more certainly when conjoined with the other hurtful powers, a most powerful cause of the return of paroxysms.

As the gout is a disease of debility pervading the whole system, but more especially affecting what the Doctor calls the internal and external surfaces of the body; that is to say, the stomach and the rest of the alimentary canal, and what is known to every body by the appellation of *external surface*; in the former of which it manifests itself by all the symptoms of indigestion and a weakened state of the intestines; and is as discernible in the latter by a sense of languor perceptible in every part, where it shews itself by that feeling of which every person can conceive an idea from the recollection of his feeling, especially in his thighs and legs, either when he begins

gins to be under the influence of ſleep, or when he is awaked from ſleep before it has had its full courſe. It is therefore next to be obſerved, that beſides taking a proper quantity of ſleep, and ſupporting the internal ſurface by proper dietetic materials, the tone of the external ſurface ſhould every where be ſuſtained by the application of a proper degree of temperature. And as the legs and feet are peculiarly liable to the prevalence of debility, they ſhould therefore be carefully kept warm. Silk ſtockings, unleſs uſed as upper ones, ſhould be avoided, eſpecially in winter, by every podagric, and worſted ones, with flannel ſocks next to the feet, only uſed. To illuſtrate the propriety of this direction: Among other hurtful powers by which he can bring on a little fit of the gout at any time, he can produce the ſame effect either by curtailing his ſleep, or expoſing his body, eſpecially his legs and feet, to cold alone, and more certainly cold conjoined with moiſture.

After thus fully inſtructing himſelf in the nature, cauſe, and cure of the gout, and finding himſelf highly rewarded for his diſcovery by the great abatement of pain and diſtreſs which he had experienced in conſequence of a different practice, he reſted ſatisfied with the progreſs he had made in the knowledge and treatment of the diſeaſe, and thought it unneceſſary to give himſelf the trouble

of ſhortening or alleviating fits when they occurred. A difficulty, however, ſtill remained, which his pupils, deſirous that the doctrine ſhould be as perfect as poſſible, wiſhed to have removed, and which his opponents urged as an objection that affected the whole doctrine. This difficulty was, how to explain the inflammatory part of the diſeaſe. It ſeemed to favour the doctrine of reaction, and therefore to ſtrike at his moſt fundamental principle. And there was the appearance of other phænomena concurring with it. The principal of theſe was the hot fit ariſing in agues after a certain courſe of cold fit. And he diſcerned that his opponents, if they had any ingenuity, might muſter ſeveral other true or falſe facts, bearing the ſame import, againſt him. Inflammation affects the throat in the gangrenous ſore throat: for which reaſon it is that the laſt perſon, who has employed himſelf in noſological writing, has placed it among the moſt phlogiſtic of all diſeaſes, the Phlegmaſiæ; and aſſociated it with the inflammatory ſore throat, as a principal ſpecies of the ſame genus. Staahl and his followers raiſed a general perſecution againſt the bark of a tree, the celebrated Peruvian bark, upon a ſuppoſition that its uſe in intermittent fevers produced inflammatory congeſtions in the abdominal viſcera. And ſuch is the diffidence, among even the greateſt phyſicians, of their own

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opinions and little theories, that Boerhaave himself was partially infected with this hypothesis of the effect of the bark; and, though he did not banish it from the practice altogether, as the Staahlians had done, he interdicted its use in the beginning of these fevers, upon a supposition that it was its early use which produced the effect already mentioned. Every physician, the least conversant in practice, reports to us, that, in the very extremity of nervous or putrid fever, to which the pedantry of nosologists gives the name of *typhus*, actual inflammation frequently affects the brain.

From all which facts, that the reader may be prepared to understand and judge of the objection that the opposers of this doctrine might infer from them, suffice it to say, that they would suppose the hot fit of intermittents, the inflammation of the fauces in the gangrenous or malignant sore throat, the inflammatory congestions arising, or supposed to arise, in the course of intermittent fevers, and the real or imagined inflammation of the brain in the end of typhus, as they call it, to be so many instances of reaction, of morbid or pernicious tendency; and that the inflammatory part of the gout is of the same import. This was a seeming induction of facts, staring his doctrine in the face, and striking at its root. It was his duty to gratify his pupils with a just explanation of it; and

 it

was the common intereſt of the cauſe to ſilence his adverſaries. The manner in which he did ſo claims attention. He had brought on a ſlight fit of the gout by unuſual exerciſe in walking. This was an opportunity for making an experiment, which was to decide the whole controverſy. A perſon called for him before dinner, who was in a way of buſineſs, that led him to drink in the forenoon. He expected a glaſs from him, and was gratified. The Doctor, for a reaſon that the reader muſt perceive, collected half a dozen of his principal pupils * to dinner, and drank with them till he only, in conſequence of what he had taken before, was conſiderably affected. He told them he had planned ſome degree of intoxication in order to explain many inflammations, which were univerſally underſtood to be accompanied with, or to depend upon, phlogiſtic diatheſis. Before the application of the ſtimulus we ſpeak of, he had not been able to put his inflamed foot to the ground, and had ſupported

* Theſe gentlemen were, Dr Edward Stephens, Dr Wainman, Dr Byam, Dr James Campbell, Mr Richard Codrington, Mr John Watſon Howel, and myſelf. The reader will readily judge from this performance, what credit with him I merit for the knowledge I may have acquired of this doctrine; but I beg leave to inform him, that the judgment, candour, and ingenuity of the other gentlemen, and their equal acquaintance with the doctrine in general, and with this particular fact, completely qualify them for being proper vouchers of it.

ſupported himſelf, in any little motion that he choſe to make through the houſe, by his ſound extremity, aſſiſted by the uſe of a ſtaff. But before he diſmiſſed his company, he recovered the perfect uſe of his affected leg. The inference from which is plain, viz. that the inflammation in the gout does not depend upon exceſſive vigour occaſioned by the exceſſive uſe of ſtimulant powers previouſly applied, but upon a ſtate of the ſyſtem diametrically oppoſite to that, viz. debility induced by a previous application of weakening powers; and that its cure is not to lower the vigour of the ſyſtem by the uſe of debilitating or inſufficiently ſtimulating powers, but to raiſe it by the uſe of powers highly and quickly invigorating. And the benefit redounding to the curative part of this, and other diſeaſes, accompanied with a ſimilar kind of inflammation, muſt be obvious to every one. The fact is not limited to the caſe of the gout, though it would remain ſtill a highly meritorious one if it were ſo; it graſps all the other caſes we enumerated.

With reſpect to the inflammation, real or ſuppoſed, occurring in the end of typhus, in a concourſe of ſymptoms of the higheſt debility compatible with life, manifeſted by ſigns of excitement in the head, and particularly raging delirium, an equal ſatisfactory experiment proved the application of the fact in queſtion to that

 caſe.

caſe. A friend of mine lay in a fever. He was treated in the ordinary way, excepting that he had a ſcanty allowance of wine; which is a practice beginning to take place among the moſt violent and powerful oppoſers of Dr Brown, in conſequence of theſe practitioners perceiving, from its ſucceſsful uſe in his own hands, and in thoſe of his followers, that it will obtrude itſelf upon them at laſt. But their prejudices in favour of the old practice, with which they have been early imbued, oppoſe an unſurmountable barrier to their uſing it, and the other diffuſible ſtimulants, in that liberal and copious manner in which only it can be of uſe. Notwithſtanding, therefore, of the wine that was given him, the ſymptoms of weakneſs went on and increaſed, till it was plain, even to a good woman who attended him as his nurſe, that death muſt be the conſequence of the plan of cure, hitherto purſued, being further continued. He had all the ſymptoms of approaching death; and from which ſhe, in a large courſe of practice in her way, had never ſeen one recover. This declaration ſhe made to me in the preſence of the landlady of the houſe. So certain was their expectation of his death, that the cloaths in which he was to be interred had for ſome time before that been every night laid out. The phyſicians who attended him ſuſpected that there was a Brunonian,

as they call the followers of the new doctrine, in the number of the friends who attended the patient; and if he ventured to prefcribe any thing for the patient, that it would be according to the doctrine which he adopted, and therefore very different from theirs. The nurfe was therefore very ftrictly charged, upon pain of all the mifchief which they could do her in her way of bufinefs, to fee their prefcriptions executed, and to admit of no other. That fuch was the threatening converfation they held with the woman, I am warranted to infer from her own affertion; that fhe had hitherto prevented my interference, becaufe her means of living were at ftake. But now, as nothing but death prefented itfelf to her expectation as the refult of the ordinary plan of cure, fhe thought herfelf juftified to God, but not to man, in allowing the new mode of cure as fair a trial as the fhort fpace of life that the patient feemed to have before him would admit of.

To explain my affertion of her not thinking herfelf juftifiable to man, her words were the following: "I fhall give your doctrine a com-"plete trial, upon this condition only, that you "will keep the fecret. My bread depends up-"on it. I am ruined if what I am about to do "be divulged. And if ever it comes out, I tell "you beforehand, that I will deny the whole

 "matter."

"matter." In confequence of this paction, opium in large quantities, becaufe fpirits and wine could not be poured in, was adminiftered from 12 o'clock in the day through the courfe of the night. The confequence of which was, the next morning pretty early, when the phyficians vifited him, that they declared him free of fever, as I am told; and, as a proof that they thought fo, ordered him chicken and chicken-broth. He remained in this happy and unexpected ftate till the afternoon about four, when he was feized with a raging delirium. This alarmed the nurfe and myfelf. I then confulted Dr Brown what I fhould do with my patient. He was not alarmed for the nature of the thing, but for the confequences, if the former plan of cure were returned to, which might prove a caufe of the patient's death, and might afford an opportunity to other phyficians to impute that death to him. The rumour, fpread among the people in confequence of fuch a report from phyficians of reputation and influence, might, he eafily perceived, terminate in his ruin. I told him the nurfe wifhed to fee him; and he defired her to be brought before him. She afked his opinion of the cafe; and his reply was, That there was fcarce a phyfician any-where, and more certainly thofe attending the patient, who would not affert, that the prefent formidable fymptoms were the effect

of

of the high ſtimulant powers which had been adminiſtered to him the night before. But he added, that if the ſame mode of cure were not continued, the patient would certainly die of a very different affection from that which they would contend it was. He endeavoured to aſſure her, that there was either no inflammation in the caſe at all, or that it was a very different affection from the inflammation that phyſicians were acquainted with: That, inſtead of requiring bleeding and other evacuant antiphlogiſtic means, it required the very ſame treatment which had been laſt employed. He appealed to the beneficial effect of that treatment in ſupport of his opinion; and he aſſerted with confidence, that the intermiſſion of the ſtimulant powers thro' the courſe of the day was the cauſe of all that had happened: for ſhe told him ſhe had given nothing of that kind during the day, from the full perſuaſion that the patient's diſeaſe was removed. The purport, in ſhort, of all this, is, that the preſent affection was a diſeaſe of debility of the whole ſyſtem, predominant in the brain in conſequence of the great ſinking of ſtrength, which conſtantly follows a total ceſſation of the uſe of ſuch highly ſtimulant powers; and that a ſinking was a conſequence of the cauſe aſſigned, in every ſtate of the human body; that dejection of ſpirits, anxiety, ſadneſs, and every ſymptom of

of diminiſhed vigour, were the ordinary reſults of a quick tranſition from debauch to abſtinence. He begged, therefore, as the life of a fellow-creature was at ſtake, and as ſhe had been ſo late a witneſs of the good effects reſulting from the method of cure, the continuance of which he ſtill recommended; that ſhe would not allow prejudice, and impreſſions from falſe theories of phyſicians, among whom ſhe had been converſant, to prevail over the high probability of ſucceſs from this mode of cure. He diſmiſſed her, after obtaining a promiſe that ſhe would continue the plan of cure in queſtion. The prejudice we have ſpoken of had prevented her from completely fulfilling her promiſe; as appeared by the conſequence next day: When I went back to the Doctor, and told him that the patient's raging delirium was now over, in conſequence of an imperfect renewal of the ſtimulant plan of cure; that he was now ſeized with a coldneſs of all his extremities, proceeding rapidly to the more centrical parts of his body. Now, ſaid he, is the time to ply the moſt powerful ſtimuli; as the nurſe, from a thorough conviction of this being a ſymptom of inſtant death in all the caſes that ſhe had ever ſeen, can poſſibly have no objection to this plan of cure, after conſtantly finding every other fail. She might have been afraid of it during the continuance of the delirium;

rium; but that apprehenſion muſt vaniſh in the preſent caſe, in which it muſt be natural to her to expect, that exciting the ſyſtem promiſes the only cure of a caſe, that muſt evidently appear to her to depend upon a ſinking of the vital energy. She was accordingly very readily prevailed upon to throw in very plentifully the ſtrongeſt cinnamon ſpirit and rum. The effect anſwered the Doctor's prognoſis. Next day the patient was altogether freed from his diſeaſe, and never had another relapſe. This cure gave great vexation to the attendant phyſicians, and all their partizans. Without giving Dr Brown the leaſt opportunity to vindicate himſelf from their accuſations, by ſpreading theſe through all the numerous circles of their friends and his enemies, they had very near ruined his character as a phyſician, and as a man. They did me the honour to involve me in his cauſe. Their accuſations againſt us both were, That we had clandeſtinely, and without authority, interfered with their patient, and thwarted their method of cure. They had conſulted lawyers, to raiſe a proſecution againſt us. They had deliberated about bringing us before the tribunal of the college of phyſicians. In ſhort, nothing leſs was their aim than the ruin of an honeſt man, and of a moſt beautiful and numerous family, for ſaving a man's life. The news of this reached him, and he received certain

tain information of every thing that the moſt active perſon in the plot was doing againſt him; of whoſe folly and malice the reſt made a handle. And, laſt of all, ſuch was their inconſiſtence, that they made an attempt to diſprove that our method of cure had ever been employed. One of them held private conferences with the nurſe; and after employing every mode of intimidation which her obnoxious ſituation ſuggeſted, he prevailed on her, as he ſaid, to deny that any part of our mode of cure had ever been adminiſtered by her. She was ſaid to have confeſſed, that ſhe had deceived me, to get rid of my importunities: And they even circulated a ſtory that I had offered her a bribe. All this was weakneſs and impotence. It was devoid of truth: it even wanted coherence. And the whole fact hung upon the teſtimony of a poor woman; who, if ſhe acted the part that was alleged, was impelled to it by her ſituation in life, indigent and at their mercy. The reader will perceive, thro' the whole of this proceſs, a ſhameful unfairneſs and meanneſs, unworthy of a ſet of men, whoſe profeſſion, if they executed it with liberality, would entitle them to the rank of gentlemen. It was unfair to ſpread the groſſeſt inſinuations againſt any perſon's character, without firſt confronting himſelf with the accuſation. It was mean, and implied conſciouſneſs of the badneſs

of

of their cauſe, to hold private conferences with a ſilly dependent old woman, in the abſence of thoſe whom it ſo highly concerned to have been preſent to enſure fairneſs. Circumſtantial evidence, the beſt of all evidence, is totally wanting in their tale; deep malice can be proved, which makes further againſt their candour and veracity. And who in his ſenſes, under theſe circumſtances, would place any dependence upon the teſtimony of a woman in the ſituation deſcribed, or oppoſe it to a chain of conſiſtent teſtimony and internal evidence that preſents itſelf on the other ſide of the queſtion? The reader will recollect the anſwer to the woman's real, or ſuppoſed aſſertion, of her deceiving me, That ſhe declared before the landlady of the houſe, that ſhe would make a full trial of my mode of cure. And I muſt be allowed to affirm, that I ſaw the firſt doſe adminiſtered. It was alſo before the ſame other woman and myſelf, that, upon finding the patient ſo perfectly relieved next morning, ſhe declared that I was the *only doctor*, for that I had ſaved a life that infallibly muſt have periſhed.

The firſt evening of the commencement of our cure, after two exceeding large doſes of laudanum had been given, the patient, who had not ſlept for 48 hours before, was enjoying a moſt refreſhing ſleep, and ſo much better in the other

ſymptoms,

ſymptoms, and particularly in the reduction of his pulſe from 112 to 92, that one of his attending phyſicians owned before me at the bedſide, that he was even then ſurpriſingly altered for the better. Further, will this nurſe deny, that ſhe came to Dr Brown's parlour along with me, and had the conſultation about what was to be done with the new ſymptom of delirium? And is it poſſible, that ſhe can have forgot the purport of what the Doctor ſaid on that occaſion? that ſhe told him ſhe had been equally ſurpriſed at the wonderful relief obtained in the morning, and alarmed at the formidable relapſe in the afternoon? At this interview none were preſent with her but the Doctor and myſelf. But it was known to ſeveral, and particularly to Mrs Brown and Dr Wainman, that ſhe had been there. And all the ſubſequent ſteps of the cure were every day communicated to ſome particular friends; who, if this ſhould any more be called in queſtion, are ready to give their teſtimony to the truth of this whole proceſs as we have related it. I myſelf attended this caſe from the beginning to the end of it, at leaſt four or five times every day; and I do here give my moſt ſolemn declaration, that the whole relation here made to the reader is truth. It is not amiſs to take notice of a circumſtance that occurred early in the diſeaſe, in further corroboration of

what

what has been ſaid. One of the phyſicians, who continued his attendance afterwards, was ſomehow or other called in againſt the patient's conſent. He ordered him tartar emetic, which the patient by my advice refuſed; in place of it, the moſt diffuſible penetrating and powerful ſtimulants were given in large quantities, and with great ſucceſs. The phyſician returning next day, perceived him much relieved. And when, the next day, he was going to impute the merit of the ſervice done the patient to the tartar emetic which he had ordered, he was then told the patient had refuſed it, and in place of it taken a large doſe of laudanum, vol. alkali, and cinnamon water. Upon hearing that, he ſhook his head; meaning, according to the practice of the oppoſers of the new doctrine, that this ſignificant nod ſhould paſs among the by-ſtanders, as a proof that there was ſome miſtake in the caſe: but a paleneſs was perceivable in his countenance; and concluſions were drawn from that, which overbalanced the effect of the nod. To do juſtice to every man, and prevent miſtake, as there were two phyſicians attending this caſe, the phyſician we have laſt mentioned was not Dr Monro. By and by, a little wine was ordered, but not by Dr Duncan.

I ſhall finiſh this vile affair, by vindicating the character of my worthy preceptor, as a man and

as a liberal phyſician. Few perſons would think it a great crime in any one, if he ſaw another killing a man, and had it not in his power to avow himſelf his deliverer, to ſave his life even in the moſt clandeſtine manner. This ſimile, however, applies not to the preſent caſe. I attended the patient in queſtion, from the beginning of his fever till the conſummation of his cure; and I was about him before any practitioner was called in. I from time to time conſulted the gentleman I have ſo often ſpoken of. He gave his opinion of the caſe, as one in which I was more properly concerned than any perſon about the patient. I was his friend; I had done him ſervice before, as will be taken notice of in a full hiſtory of his complaints, to be ſubjoined to this account. One of the phyſicians was called in by no other authority than mine: the other, by none at all, at leaſt not by mine; and, as I have before obſerved, againſt the patient's conſent. My reaſon for calling one of the phyſicians was, that, as I knew from his Lectures he was no friend of the ſpaſmodic doctrine, I hoped he would lay down a different plan of cure from the evacuatory debilitating one, which that doctrine ſuggeſts; that we would have nothing to do with the moſt pernicious and deſtructive of all powers, which upon any occaſion have been ever employed as remedies in fever, *tartar emetic*;

and

and laſtly, that he would, upon a fair and candid recital of the plan of cure, ſo ſucceſsfully uſed by Dr. Brown and his pupils, be induced to concur with him in his ſalutary practice.

Theſe were my expectations; and they were the more ſanguine, that I knew the common method of cure of fever had been for a long time altogether abortive. The deaths of ſtudents, not to ſay of others, for 20 years back, ſo well known to every one, and often ſo unexpected from the mild manner in which the diſeaſe commenced, could not fail to have looſened any man's attachment to that mode of practice, and prepared him for the reception of one ſo much preferable to it in every reſpect, and which had never failed even in the worſt caſes.

I communicated this reaſoning with myſelf to Dr. Brown. His anſwer was, That it was very bad; that I was unacquainted with the intereſted arts of thoſe men; that all their ideas in medicine, and particularly in its practical part, were ſo diametrically oppoſite to his, that they never could be brought to any ſort of reconciliation. And laſtly, he informed me, that his doctrine and practice had touched them ſo much in their tendereſt and moſt expoſed parts, that their paſſion and hatred to him had got the aſcendant over their reaſon, ſo that there was not the moſt diſtant hope that a meeting betwixt

 him

and any of them, would be productive of either harmony or common decency; in short, that the only plan of conduct they could hold towards him was to seek his ruin.

Non levia aut ludicra petuntur,
Sed Turni de vita et sanguine certunt *.

This he quoted on the occasion. However, continued he, as a man's life is at stake, and as he was certain for himself that he would act a part for which he could acquit himself to the public and his own conscience, he would meet with this gentleman, and hazard every consequence of such a meeting; provided I waited upon him, and gave him full intimation, that he himself had been called in by me in expectation that he would proceed candidly and harmoniously with Dr Brown in the treatment of so difficult and dangerous a case: And he added, that I should communicate it to this gentleman, that, in consequence of great service having been rendered to the patient before he fell into the fever, by Dr Wainman and me as pupils of Dr Brown, he had entertained a good opinion of his abilities as a physician, and that he was therefore the only physician whom he had any desire to attend him. His constant cry, after the disease arose to an alarming degree of violence, was Dr Brown, with whose name he always conjoined mine.

This

* Virgil.

This is a truth that cannot be denied, and that the nurſe dare not deny. This whole converſation paſſed between the Doctor and me, in the preſence of another gentleman; who, after the great noiſe about this cure had commenced, and when the Doctor was now accuſed of having clandeſtinely, and even illiberally, interfered in, and counteracted other people's practice, aſſerted before ſeveral gentlemen, that he had heard and could vouch the truth of the whole: And theſe gentlemen are ſtill ready to atteſt their remembrance of this gentleman's declaration. Upon recollection, however, and receiving a very different advice from other friends, who were of opinion, that no good could come of the propoſed meeting and coaleſced plan of cure; that they were too much fettered by their prejudices, and impelled to oppoſition by intereſt; and too ſeverely hurt, from his repeated ſucceſs in a method of cure diametrically oppoſite to theirs, for ſuch mutual advances being made between them as could terminate in any conſiſtent plan whatever; beſides, that there was danger of ill blood and indecent conduct in the parties to each other: Induced by theſe conſiderations, I never made the propoſal to the phyſician we ſpeak of, which Dr Brown had ſo particularly recommended to me. This, with reſpect to the phyſician of whom I have been ſpeaking, muſt appear a ſatisfactory

 and

and honourable vindication of that gentleman from the moſt unjuſt charge of having clandeſtinely interfered in, and illiberally counteracted, or attempted to counteract, the practice of other phyſicians.

With reſpect to the other phyſician with whom we have had concern in this caſe, our proceſs of vindication is very ſhort. One of the moſt accompliſhed gentlemen and intelligent phyſicians who have embraced the new doctrine, and who had ſurrendered a great deal of prejudice againſt it to a full conviction of its truth, of which he has at all times made the moſt determined and open avowal, Dr Stevens, was deſired by a friend to take advantage of a certain intimacy and connection that he had with the other phyſician of our patient, and, as a friend, to inform him of the great efficacy of the new practice, and put him in mind of the futility of the common one; and to aſſure him, that, from repeated experience of his own of the great ſucceſs of the former, and from every body's knowledge of the inefficacy, if not hurtful tendency, of the other, there were not the leaſt hopes of recovering this patient from ſo alarming a concourſe of ſymptoms, unleſs the plan of cure were conducted totally according to the precepts of the new doctrine; to demand his giving it a fair and candid trial, as the deciſion of the controverſy was ſo cloſely

con-

connected with the dearest interest of humanity, that of preserving life, and averting the danger of death. Dr Stevens replied, That he doubted if he could use such freedom with this gentleman, as he knew his opinions to be of a very different nature; and was apprehensive that he could hardly be induced, by any arguments that could be urged in a short conversation, to alter a practice he had been accustomed to for so many years, and in which he was countenanced by most medical practitioners. He went, however, and saw the patient; and reported, that the case required the most accurate application of the new plan of cure: that there were not the least hopes that either of the attending physicians would yield to any part of it. He added, that he deeply regretted the state of physic; that he dreaded the event with respect to this patient; and that neither he himself, nor Dr Brown, could be of the least service in the case, unless they were left at full liberty to urge the new plan of cure in the most complete manner. It was his opinion, therefore, that neither of them should interfere, as it might be attended with very disagreeable consequences.

The reader will now perceive, from a cloud of witnesses, and from a chain of facts, all connected with and supporting each other; from a full exposition of the motives, intentions, and well-

well-known conduct of the opponents of the new doctrine and its author; from the surprising cure performed in this case, compared with the fatal tendency and actual fatality of the ordinary practice, even in the mildest cases; from the corroboration that the new practice in the cure of fevers receives from the similar success of it in all other idiopathic, nay, even in local affections; from the known interestedness of medical practitioners, especially those who teach and take the lead in the profession, impelling them at all times, and never more than at present, to oppose every innovation, however much it might tend to the improvement of the art, in proportion to its tendency towards the subversion of the systems or doctrines from which they derive all their profit and significancy: Lastly, When to all this is added, that the Doctor, from his love of truth, and profound regard to the highest temporal interests of mankind, has engaged in an enterprise that few men, at any period of civil society, have had either the boldness or the disinterestedness to undertake; in which his reading and observation could not fail to inform him, that he was retarding, if not marring altogether, his advancement in his profession, by opposing in the most determined manner every view in physic which its practitioners hitherto had inseparably connected with their profit and avarice: From all this the reader, I say, will readily perceive to which

side

ſide of the diſpute he ought to attach his appro-bation; I mean the diſpaſſionate and diſintereſted reader. His ſituation with reſpect to his oppo-nents is very ſimilar to that of the apoſtles with reſpect to their opponents, the trinket-makers and jewellers who were employed in working for the temple of Diana at Epheſus. Theſe men, ſaid they, and their goſpel, we muſt oppoſe; and ſupport the old religion, it being by it we have our bread. He could not but recollect the per-ſecutions excited againſt Martin Luther for the improvement he had made in religion, and the ſpirited boldneſs by which he called in queſtion the infallibility of the Pope. He muſt have re-membered the repeated attempts made to aſſaſſi-nate the great, the wiſe, the patriotic, and the good, Father Paul. The inquiſitorial tyranny by which the great Galileo was obliged to recant his moſt important diſcoveries, could not eſcape him. He muſt have had other examples, ſtill nearer home, before his eyes. The oppoſition to Lord Bacon while he was known to be premeditating the moſt valuable work that had ever been given to the world; and the conſequent ſlow advances he made in his profeſſion, at leaſt for a long time *: The fate of the two penſionaries of Holland, the De Wits, for their patriotic oppo-ſition to the incroachments of the Houſe of

 Orange

* See Bacon's Letters, and Hume's Hiſtory of England.

Orange upon the public liberty; and their efforts, to ſuppreſs and prevent that ſyſtem of political influence, which, ſince their death, has eſtabliſhed a complete ſyſtem of domination in Holland, and left nothing of a republic but a name: The conſiderable length of time that it took to ſuppreſs oppoſition, even to the ſyſtem of the immortal Newton, and to give it a full eſtabliſhment;—muſt have all crowded in upon his reflection. And, to bring the matter home to the medical department, the oppoſition made in Alexandria, in the reign of Ptolemy Philadelphus, to the introduction of anatomy among a people, whoſe ſuperſtition taught them that they were defiled and polluted by the contact of the dead; the ejection of the celebrated Galen by a violent party, who overpowered him at firſt, and might have done ſo for ever, if he had not had the good fortune to come into the good graces of the empreſs Fauſtina, whereby he received the protection of the emperor, which ſet him over the heads of all his enemies. Theſe were a ſelection of many inſtances which might be adduced of the intereſtedneſs, bigotry, narrowneſs of mind, and virulence, of medical practitioners in former times. But the narrow and late eſcape from ruin that Harvey made for diſcovering the circulation, and Sydenham for eſtabliſhing a ſalutary method of cure in phlogiſtic diſeaſes, will

perpetuate the illiberality and malignity of phyficians, in confequence of their having at all times confidered their profeffion as liberal only in name, and in fhow, to the people, but in reality as a trade for making money by all the artifices and intrigues that avarice naturally invents for its own gratification. Thefe, he muft fee, were held up to him as a mirror in which he might behold his own cafe. Though the Materia Medica might ufefully be ftripped of the far greateft number of its articles, and with great benefit to every part of fociety, except apothecaries, and the practitioners who rely much upon drugs; the Peruvian bark, however, belongs not to the part which ought to be rejected: and yet, not only upon its firft difcovery, and while the knowledge of its efficacy was as yet confined to a few, but even the teftimonies in its favour were indifputable, and the trial of its virtue open to every one, was that excellent remedy banifhed from the practice of medicine, both over Germany and in many other parts. Opium, the moft excellent remedy, the moft powerful and quickly diffufible ftimulus, and proved, efpecially by the new doctrine, to be the moft effectual fupporter of life in that rapid finking which fo often eludes the efficacy of all other means, and, to the difgrace of the profeffion, has coft, and ftill cofts, fociety fo many lives,

found

found its way very flowly into general practice: and when it came into any fort of ufe, was, and is ftill, ufed in fuch sparing quantity as feldom to produce any benefit. Nothing was more common in Edinburgh, within thefe 20 years, than the adminiftration of laudanum, in the cafes where it was fuppofed to be indicated, from five to ten drops. It was thought, and the opinion ftill remains, that to raife the dofe to 20 or 25 at the utmoft, was a great and bold improvement. But that is not the fourth part of the quantity in which it ought to be ufed in the cafes where it is only required, which are thofe of ultimate debility, fince wine and fpirits, more or lefs diluted, fuperfede its ufe in cafes of lefs debility. But the truth was, phyficians neither knew the operation of this valuable remedy, nor the nature of the difeafes in which its ufe is required. They fuppofed it a fedative; but if it had been fo, how came they to this very general agreement, that it is hurtful in phlogiftic difeafes? It is only ufeful in difeafes of debility; which is a fact that Dr Brown has proved to a demonftration *. It is ufelefs to multiply examples of the perfecutions that have been raifed againft the greateft, the wifeft, and the beft of men, merely for their

having

* See a medical differtation, publifhed at Edinburgh in 1779 by Dr Stewart, *De Spafmo*. See alfo the difcoverer's own Lectures.

having rendered the moſt material ſervice to ſociety, that of making noble and uſeful diſcoveries. Human nature, when not biaſſed by falſe views of its own intereſt, which unhappily miſlead, too often into crimes, the greateſt part of mankind, as the hiſtory of man's actions in a civilized ſtate in all ages evinces, is ſocial, beneficent, and kind. But as ſoon as the plan of ſelf-gratification is laid by any individual, without regarding the juſtice that he owes to other individuals, and to ſociety at large, he conſtantly ruſhes on to his favourite object, regardleſs of the means, honourable or baſe, provided he may attain his end. When the predominant paſſion of any one is to ſet himſelf above others who are his natural equals in the ſimple congregated ſtate of man, all other paſſions are ſuſpended or rendered ſubſervient to it; all the rights of other members of ſociety are diſregarded and trampled upon. Hence ariſe all the invaſions on public and private rights. Hence a Cæſar or an Alexander will have the ruffian aſſurance to ſubject a world to their domination. Hence Xerxes will ſcourge a million of ſlaves over the Helleſpont, to extinguiſh human liberty in the only little ſpot where he knew it exiſted, in its moſt comely and eſtimable form, and gave his higheſt dignity to man. Hence a Catiline, a William the Conqueror, a Cromwell, have made their more limited

mited depredations upon mankind. Hence, in private ſocieties, the turbulence and intrigue of ambitious members. When riches are the grand object of purſuit, the widow, the orphan, the innocent helpleſs ſuckling, muſt reſign their only means of exiſtence to the gratification of this infernal paſſion of their oppreſſor, and inſure its object by a total privation of every means of oppoſing it, or give it ultimate ſecurity by their expiring breath. If both ambition and avarice be united, as they often are, in the ſame character; which is the caſe with ſtateſmen, courtiers, miniſterial or antiminiſterial, and private corporations of men, honoured by the public with diſtinction and emolument, for ſome virtuous purpoſe, in a community which they now begin to diſregard in proportion as they graſp at their rewards; then it is, that all the miſchief flowing from both are perpetrated at once. Such are the ſources of the numerous train of evils that infeſt human life. The love of pleaſure, in its ſtrict ſenſe, as diſtinguiſhed from avarice and ambition, might appear a third one; but as its object cannot be attained without the one or other of them, it is therefore comprehended under them. Eating, drinking, commerce between the ſexes, diſſipation, idleneſs, varying the voluptuous ſcenes, cannot be purſued in civil life in the enormous degree in which nature, when once

once depraved and debauched, demands, without encroachments upon the rights and properties of many. But it is only the rich and powerful that can carry this species of injuſtice and oppreſſion to any conſiderable extent. The luxury of the indigent and weak naturally circumſcribes itſelf within very narrow bounds. Cunning and addreſs may enable a few adventurers to go a certain length in this way; but the common ſenſe of men, excited by attention to their rights, and intereſts, and pleaſures, will ſoon prove an overmatch for ſuch engines of iniquity.

From the prevalent abuſes which we have been juſt now deſcribing, it is much to be regretted that the beſt intended inſtitutions have degenerated into the worſt. Nothing is more current in a free ſtate than diſcuſſions concerning the different forms of government, monarchy, ariſtocracy, democracy, theocracy, or certain limitations and modifications of each of theſe; or, as in Britain, a mixture of the three former. They may be each of them either good or bad, according to concomitant circumſtances. If the banditti which Romulus aſſembled on the banks of the Tiber, and which he ſet himſelf over as a leader, had not been united under him, as ſo many members under a head, they never would have founded the city of Rome and the empire of the world. Neither would their ſucceſſors,

ceſſors, for a certain period of time, without the ſame means of union, Kings, cementing them into a firm, compact, and regular body, have been able to make head againſt a number of little ſtates around them, older, and therefore better modelled, than themſelves. And, after the monarchy degenerated into deſpotiſm, and the prince into a tyrant, and they had now became deſtructive, not a ſource of health, to the ſubjected parts; after the ſeveral members, when they had been taught by the head each to perform his proper function, by habit and exerciſe were now rendered fit in their turn to exerciſe any function of the common ſyſtem; then it was that they were fully matured to act among themſelves for the common good. Hence a republican form of government, which, more early inſtituted, would have produced the diſſolution of the whole body, now became neceſſary to cement the whole, and invigorate every part. So complete now was the whole ſyſtem, ſo enlivened and invigorated through all its parts, that every principal member would act the part of the head, and every head return to that of a member. There was now, while all the parts of the community ſupported, excited, and corrected every other, no longer any danger, either of deſpotiſm on the one hand, or of anarchy on the other.

While

While the body was of moderate ſize, and compact, and manageable, by this perfect union of its parts, and complete attention of each to the common weal, the republican form was natural and healthy, and divinely right. Then conſuls and dictators could be ploughmen, and ploughmen conſuls and dictators. A little ſtate conſiſting of a moderate number of individuals, all fired with enthuſiaſm againſt deſpotiſm, for liberty, and their common and ſeparate rights and privileges, is foſtered and enlivened by the republican form of government; monarchy would cruſh it in the head, ariſtocracy would extinguiſh the life of all the ſeveral members.

But, after a ſtate becomes to be numerous in its citizens; and the lower ranks of theſe, in conſequence of their number, begin to be obliged to turn their chief attention towards their own ſupport as individuals, and to be proportionally leſs intereſted in the common good; for that very reaſon, they become leſs qualified than their fellow-citizens, who are more at eaſe, for taking any conſiderable ſhare in the public adminiſtration. At ſuch a period the more opulent part of the community naturally ſtep into the offices of ſtate, and take the government over the others. In this way only can I perceive, that the States of Holland have

degenerated

degenerated from a most simple republic into an uncontrouled aristocracy.

The natural situation of Venice, from the great indigence, credulity, and superstition of the lower ranks of the people, which naturally exclude them from all pretensions to interference in the affairs of government, and from the mutual jealousy of the nobles, leads to aristocracy. The despotism of which form of government, which is great, and detestable to a Briton, would be still greater if this effect were not prevented by an intermediate set of citizens, the poorer nobles: who therefore, excluded from power themselves, and on that account jealous of the rich ones in power, naturally favour the commonalty; and, like friction applied to parts threatened with gangrene, prevent the final extinction of life in the extreme parts of this political system.

Geneva, and a little state or two in Italy, not far even from the state of the church, that seat of hierarchial, and therefore the deepest of, despotism, are secured in a pretty pure republican form from their own insignificancy, and the mutual jealousies of the greater powers surrounding them; each of which, were it not for these circumstances, would swallow them up like so many whales devouring the smaller fishes. But, were these *staticles*, though occupying a small extent

extent of country, to become extenſive in their colonization of rich foreign places, formidable in the fleets neceſſary to ſupport theſe, and wealthy in conſequence of a widely extended commerce, and leſs cemented in the maſs of the people; which, from the neceſſity of employing many foreign hands in their ſervice, has been the caſe of the Dutch for two centuries, and was the caſe of ancient Athens; they would ſoon, like both, ruſh with rapidity into ariſtocracy, and end in a complete ſubjection to a foreign more powerful monarchy. As Philip king of Macedon terminated the glories of the Athenian republic, in a final ſubjection to his arms; ſo, if Britain ſhould be worſted in the preſent war, will the Burgomaſters, and all the other Mynheers, probably become an appendage of the French monarchy, or be divided betwixt it and the empire? Nobody can read the termination of the Peloponneſian war, and the commencement of the Macedonian hoſtilities againſt the ſtates of Greece, and that of Athens above all the reſt, without the deepeſt regret. The diſſolution of a moſt beautiful form of commonwealth, firſt in an ariſtocracy, that is upon the eve of ſacrificing the community to a foreign and natural enemy, in the ſtates of Holland can never be productive of ſatisfaction to any good and ſenſible man.

By all the ſame ſteps which we have been juſt

now tracing, did the illuſtrious and powerful commonwealth of Rome proceed from that form of government to the moſt bloody Ariſtocratical, and from the latter to the abyſs of deſpotiſm.

The firſt kings of Rome, the preſent king of Pruſſia, and Peter the Great of Ruſſia, gave us examples of the indiſputable advantages of monarchy, under certain circumſtances, when that monarchy is conducted for the good of the whole. England may boaſt the ſame thing of a princeſs, equally arbitrary as thoſe we have mentioned; and her ſiſter-kingdom, now united with her, as well as the moſt powerful monarchy on the continent, whoſe invincible armada ſhe under the favour of heaven diſcomfited, had as much reaſon to regret it at the time.

The flouriſhing ſtate of Rome from the expulſion of the houſe of Tarquin to the end of the ſecond Carthaginian war, and the commencement of the conqueſt of Greece and of the kingdom of Macedonia; the brilliancy of the Athenian republic, from the expulſion of Piſiſtratus their laſt tyrant, till towards the end of the Peloponneſian war; the flouriſhing ſtate of Holland, after the ſplendid vindication of their liberty, from their gloomy, cruel, ſuperſtitious, bad-hearted, cowardly tyrant, Philip II. while it was foſtered by the paternal care and influence, without pretenſion to authority and juriſdiction,

risdiction, of the successors of William prince of Orange, who fell a martyr to the vile assassinating spirit of the last-mentioned monarch, for vindicating the rights of his oppressed country, and propping it with his worth and greatness, when it had scarcely another support but its own internal energy; the freedom of Geneva, diffused through all ranks of the people; the perfect happiness and primitive simplicity of the little state of Lucca; are so many instances of the propriety of the republican form of government under the circumstances which admit of it.

We have not time, nor is it to our purpose, to settle the question, Whether an aristocratical government under any circumstances is eligible. We may only observe, that, after the balance of power in Rome had inclined a good deal to the side of the senate and a number of their principal members, who had borne and were bearing public offices against the plebeians, it did tolerably well for a very short time; that the aristocracy of Holland, since the ungrateful martyrdom, from the blind rage of an infatuated populace, of their patriotic pensionaries the De Witts, has done pretty well till the commencement of their present war against Britain; and that the present government of Venice, may, for any thing that we know of its interior springs, be good enough for its slavish, spiritless, senseless

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ſubjects. It is the end of government to give the governed part all the happineſs they can receive, and a little more than the governing part take to themſelves. We reject the ſuppoſition that any part of mankind have a natural tendency to ſlavery: But we think it probable, that long habit, example, and precedent, ſupported by mens ignorance of their own natural rights, and rivetted by an artful ſuperſtition contrived to give that idea its fulleſt power, and further confirmed by natural cauſes, as the enervating heat of a climate, the want of the exerciſe of diſputing their freedom and independency with brave, active, and ambitious neighbours, and the uſe of vegetable food, may render any people, under theſe and ſimilar circumſtances, ſo propenſe to ſlavery, ſo inſenſible of their rights, importance, and dignity as men, that it might take a hundred years of time, and the higheſt exertion of as many firſt heroes as could act in the courſe of that century, to bring them to any tolerable ſenſe of Roman, Athenian, or Britiſh ſpirit. Further, with reſpect to the preſent ariſtocracy of the Dutch, we think the decline of wiſdom in their public deliberations, the noted torpor of the people under their preſent adminiſtration, and the poſterity of that people, who once made ſo brave a ſtruggle for liberty and independence, ſubmiting to private trials, private condemna-

tions,

tions, and private executions, ſhew them to be in a ſtate approaching ſo near to the ſpiritual ariſtocracy of the inquiſition, that we are ready, at leaſt at preſent, to pronounce, That ariſtocracy, under no circumſtances, is ever a form of government ſuited to the proſperity and happineſs of men. Republics may often, from the unequal diſcernment of the equal judges, produce unjuſt ſentences, either in exceſs of rigour or indulgence; and, as the deciſions of the Areopagus teach, they may too often err on the ſide of ſeverity. But the infelicity of the event bringing conviction along with it of the error of its cauſe, the falſe judgment, which occaſioned it, would from time to time by experience teach any European mob to be wiſer for the future; and much more certainly a people inſtructed by their orators, inſpired by their love of their country, enamoured with public and private liberty, impreſſed with a juſt ſenſe of the abſolute ſecurity of their property and lives, and, from every citizen having an equal ſhare in public legiſlation and juriſdiction, habituated to a juſtneſs of deciſion; advantages which no people in Europe, but themſelves, poſſeſſed in ſo eminent a degree, and which none at preſent poſſeſs in any degree at all. In ſuch a maſs of legiſlative authority, there might be more fools than wiſe men; but as wiſdom, wherever it is

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placed, though in a confiderable minority, is ftill wifdom, and difcernible even to fools as fuch; in fuch a form of government as this, it is to be fuppofed, that it would prove an overmatch to folly, weakened by its difperfion among the multitude. An Alcibiades, from a whim of the people, or from an apprehenfion that the fplendour of his rank, conjoined with his high abilities, could endanger their liberty, might fuffer a temporary exile, either from his own wantonnefs, or their fuperftition. But the firft defeat of their armies or fleets would, from a conviction that it originated from the want of his high abilities, immediately occafion his recal, his being placed again at the head of their fleets and armies, and a remiffion of the high crime of facrilege itfelf, with a compulfion of the Eumolpedi themfelves to take off their excommunication. The jars between the patricians and plebeians of Rome, while that city remained upon its genuine republican bafis, alarm every reader with terror for the confequence: But, after reading through the full hiftory of this jealoufy and animofity, how are they furprifed to find, that every fuch tumult converted internal buftle into external advantage; and every renewal of a quarrel among themfelves, produced a renewal of victory over their enemies! The government was well poifed. There was

no diſproportion of weights in the ſcales of its balance. It was juſt like John Bull, upon his own dunghill the city of London, bawling out, with a moſt vociferous voice, *Wilkes and liberty for ever! The Proteſtant intereſt! D—n L—d H——neſs! D—n L—d B——! D—n the Scotch! D—n the K—g himſelf! L—d G——e G——n for ever.* But, after John has got out his breath, which he muſt have, Wilkes, and Hol——neſs, and Bute, and North, are equally forgotten; and the leader of the religious mob is deteſted in the devaſtation of the city. Honeſt John never means ill; commonly only occaſions a temporary moleſtation, which ſerves but to direct and excite his energy towards material ſervice to the public. When his paſſion has evaporated, he thinks tolerably well upon the whole; and when he is put in mind of his extravagance in his hot moments, Well, ſays he, but I did not d—n the Q—n, nor any of her little fine fellows. If you be civil, and don't pretend to compel me; what right have you over a free-born merchant? I'll behave myſelf as well to you: there is my purſe; d—n you, what would you have more? In the ſame manner, at Rome, all the contentions between the ſenators and commoners were ſo many petty jealouſies, leſt the one order of the ſtate ſhould get the aſcendancy over the other. Both equally agreed in the love of public and

private good. It is out of the queſtion to obſerve, that, amidſt the claſhing between the honeſt parts of the community, many knaves interfere, who regard and ſeek nothing but their own private emolument; which they would not forego for any advantage to the public. This ſet of men diſtinguiſhes no nation; they are in common to all civilized ones; and we take no notice of them, becauſe they have no concern with the point in queſtion. All we meant to ſay, is, that a republican government, under the circumſtances which admit of it, may, under its worſt appearances, be not only compatible with public good, but even conducive to this. It is only when the whole maſs of the people is corrupted; as they were in Holland when they murdered the De Witts; and as they were in Rome in the civil wars between Marius and Sylla; in the dictatorſhip of the latter; in the triumvirate of Pompey, Cæſar, and Craſſus; in the civil wars that followed the conteſt between the two firſt, when the laſt was out of the way; and laſtly, in the triumvirate that followed, and civil bloodſhed ſucceeding to that, which terminated in the converſion of the moſt illuſtrious, if not the beſt republic, into the moſt vile, gloomy, and abject deſpotiſm: It is only in ſuch a general depravation of morality, that republicaniſm

becomes

becomes unfit for the purpofes of good government and the welfare of the community.

With refpect to monarchy, fuppofe it in its worft ftate, that of defpotifm and tyranny; it is the intereft of every monarch or defpot, to gain the affection of his people, by promoting their common good. He may be young, he may be weak, he may be wicked; but neither youth, weaknefs, nor wickednefs, are fufficient of themfelves to render him the common enemy of his people. After the Roman defpotifm and tyranny had been fcrewed up to its height under Nero; after his fpirit, inimical to mankind, had gratified itfelf with as much mifchief as mortal authority, commanding a world, could perpetrate; ftill all this was nothing more than partial defolation. He accelerated his murders, but they were in fucceffion: He wifhed the Roman people had but one neck, that he might have it in his power to ftrike it off at one blow: but he could not effect his wifh. He burned the city of Rome, to divert himfelf with a reprefentation of the deftruction of Troy; and, the more to enliven his imagination, he played upon his fiddle the *Deftruction of Troy*, a tune in fafhion at that time. In a word, in inimicality to mankind he outftripped all tyrants of which the page of hiftory has given us any account, and even the tyrants of Rome who either preceded or fucceeded him.

But

But what was the amount of his whole mifchief? His wifh was fomething more horrid than any thing that we can afcribe to any being well known to us out of hell or Grecian fable. But it was only a wifh more horrid than hurtful. His burning the city was partial. His affaffinations were confined to his courtiers, and confequently corrupters; and a few citizens, whofe opulence placed them within the obfervation of his informers. Abfence from his court, and mediocrity of fortune, placed men out of the reach of his rapacity and cruelty. The empire of Rome was fafe upon the whole. Nay, the example he made of every thing eminent around him, prevented his governors from rendering themfelves, by extortions from their refpective provinces, obnoxious to his rapacity, and thereby enfnaring themfelves by the wealth which he might have fome appearance of juftice in bringing them to an account for. It is a common maxim, *Cum conful gladium eduxerit, quis finem ftatuit?* When a tyrant begins his ravages, it occurs to the humane reader that there may be no end of them; and that the conftitution of human nature may be thrown off its poife by an impotent individual, however great a prince he may be. The worft effects of tyranny have been expofed; its utmoft extent furveyed: and yet it has been found only a very partial evil, in-

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ſtead of the general ruin that a humane mind, from its commencement and progreſs, would naturally apprehend from it. The inquiry has been taken on the largeſt ſcale. The emperors of Rome had it in their power, when they were evil-minded, to do more general miſchief than any monarchs either before or after them: One has been ſingled out, whoſe miſchief was the greateſt; and, after all, it will occur to any reader, much converſant in the hiſtory of the Roman empire, that the extortions, and conſequent diſtreſſes produced over the provinces, during the prevalence of the ſeveral juntos in power, before the government finally ſettled in the worſt of all governments, deſpotiſm, were conſiderably greater than ever happened, either under this or any other monſter of an emperor. Vile, abject, and enſlaved in body and mind, as the ſenate of Rome was at the period we ſpeak of, they had the courage, in ſpite of his Prætorian guards, upon ſeeing the conduct of Nero of an unuſual evil tendency, and portending a greater magnitude and extent of calamity than they were acquainted with in their limited knowledge of hiſtory; and even to ſupergrade the effects of the innate malice of a Tiberius, or a Caligula; to declare him an enemy to mankind, and ordered him to be whipped to death, according to the common account: For it is much

much to be regretted, that the moſt authentic account of the end of Nero, and ſome ſucceeding intereſting reigns, are loſt to us in the loſs of that part of the moſt judicious Tacitus's hiſtory that comprehended them.

After this full expoſition of the worſt effects of monarchy, our ſhort concluſion upon the whole is, That the hand of a tyrant falls heavy chiefly upon the vile abettors of his tyranny, who immediately ſurround his throne, and there it can hardly fall wrong; while the equal or greater domination of ariſtocracy, ranſacks every corner over which it has any power. Theocracy of every form and denomination, and diſplayed under whatever forms of religion or ſuperſtition it has hitherto appeared, we induſtriouſly paſs over, becauſe our acquaintance with the ſubject intitles us not to intermeddle with ſo ſerious a matter. We have ſaid enough, and, many of our readers may think, more than enough, upon the ſubject of civil government, with a view to what we are next to enter upon, to have a title to the indulgence of our reader for allowance to proceed to that part of our ſubject.

As no form of government has been ſhewed to be either good or bad in itſelf; and, on the contrary, with ſome doubts about ariſtocracy, may be either, according as they produce greater or leſſer benefit to mankind; by the ſame rule

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are we to judge of other inſtitutions of leſſer magnitude, whether of a public or private nature. Theſe are many and varied. But it belongs not to the purpoſe of this work to take notice of any of them except one; to which we now proceed.

Univerſities on their preſent footing ſeem not to have exiſted in ancient times. Among the Greeks and Romans, it does not appear that certain ſets of men were authoriſed by the public to teach the ſeveral departments of human knowledge; while others were excluded, or diſcouraged. Socrates was only a private teacher. The rhetoricians and grammarians were likewiſe ſo. Every one who took upon him to teach, delivered what doctrine ſeemed to him the beſt of its kind; and his ſucceſs was always in proportion to his real or apparent merit. Accordingly, ſome teachers and writers became famous, drew after them great numbers of followers, and at laſt formed different ſects of doctrine. Hence the Pythagorean, the Socratic, the Academic, and Peripatetic ſchools. The ſubject of morals was not only treated in ſpeculation, but followed out in practice. The two principal forms it aſſumed, were, the Stoical and Epicurean. Phyſic anciently was upon the ſame footing as other arts; for, excepting the elements of geometry, no part of ancient knowledge ſeems

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to merit the appellation of *science*, in the sense which the moderns have affixed to it. The principal instructors of youth in this branch of knowledge, from Hippocrates to Galen, were all private teachers. It was only after the revival of letters in Europe, that privileged schools for teaching the several departments of the arts and sciences, began to be instituted; or the former schools of divinity and astrology to be converted into these, with an addition of privileges, immunities, and emoluments. The honour thus bestowed on the seminaries of learning, was reflected upon the several individuals composing them. The students, according to their proficiency in the several branches of erudition which they had cultivated, were honoured with oral eulogies in the common-hall of all the colleges; and received written testimonials, conveying titles of honour and distinction: as, *Bachelor of Arts*, *Master of Arts*, *Bachelor* and *Doctor of Divinity*, *Law*, and *Physic*. These titles gave their holders rank and precedence in the community. They were understood to have been conferred for personal merit, and therefore were more honourable in their nature than hereditary distinctions. They had, therefore, a powerful effect, both in drawing many to universities, whose ardour for excellency in knowledge, without such literary premiums, might have subsided,

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with the finiſhing of their ſtudies in the ordinary ſchools; and all who came to the univerſities, and had any abilities to diſtinguiſh themſelves, were inflamed with the keeneſt deſire of attaining the honours which they ſaw beſtowed upon their ſenior fellow-ſtudents. All this had a good effect for ſome time. Every branch of knowledge then known, and particularly the Greek and Latin languages, with the valuable fund comprehended in them, were ſtudied with ardour. Learning diffuſed itſelf over Europe with ſurpriſing quickneſs and rapidity; and, in little more than a century, the long night of Gothic ignorance was ſucceeded by a dawn of knowledge, which influenced the greateſt part of Europe. The effects of this were of equal magnitude and extent. It affected the political and the eccleſiaſtical ſtate. The errors of the Roman hierarchy were detected: the belief in the infallibility of the Pope was diſcuſſed, and publicly renounced by a reſpectable part of Europe; and ſo extenuated in the reſt, as to reduce all that power, which had ſubjected every monarch to its obedience, within very narrow limits. The Pope, who for two centuries before had eſtabliſhed a domination over all the thrones in Europe, and, like Joſhua one of the leaders of the Jews from Egypt to Canaan, had ſet his foot upon the necks of conquered kings,

kings, is now reduced to the neceffity of fupporting the fmall remains of his hierarchy upon the feeble prop of public decorum, and the conviction in the European princes of the perfect fecurity which they derive from his infignificancy. Europe had hitherto been governed by a barbarous fort of military law, the feodal fyftem. The Roman law now became to be inquired into. The occupation of Europe hitherto had been to live by plunder, and therefore mutual devaftation. A commencement of a very different mode of acquiring neceffary fubfiftence, now took place. Merchandize was fet on foot. Venice fet the example; and property, which had hitherto been meafured by the length of the fword, was now judged of by a very different rule, that of juftice and equity. The Juftinian code was a moft excellent fyftem to make the groundwork of all the laws that the different ftates of Europe could have occafion for either in their incipient or more improved ftate of civilization. The municipal law became a general ftudy. But this body of Roman law could never be applied to a number of ftates, as different from the Romans who were governed by it, as complete barbarity, influenced by a fpecies of priefts which Rome in her wifdom and vigour never knew; whom fhe only faw with her eyes wavering in death,

death, and upon whom ſhe only breathed with her laſt breath, could be from a wiſe and refined people. The feodal law, therefore, remained as the baſis of the juriſprudence eſtabliſhed in the different ſtates of Europe. But it received conſiderable improvement and enlargement from the Juſtinian code; which now became a ſubject of ſtudy in the univerſities.

Theology was alſo ſtudied in the ſame ſchools; and, from the colliſion of different opinions upon particular ſubjects, becoming afterwards a ſubject of inquiry through life, the great theological points, mentioned above, came at laſt to be agitated with ſome acuteneſs and more zeal; an occupation among a few individuals, which, from their influence over their reſpective multitudes, whom they induced to ſupport their new doctrine, terminated in the reformation of religion in Europe.

In the ſame ſeminaries of learning, the ſtudy of medicine had a place: The Arabic tranſlations of Galen's works were now exchanged for the originals; to which they had now free acceſs, from the importation of the Greek books and learning, after the taking of Conſtantinople by the Turks.

Philoſophy was alſo cultivated; and that of Ariſtotle was the ſyſtem adopted. But we have no occaſion here to add any thing to what we

have formerly ſaid, upon theſe two laſt-mentioned ſyſtems. Their demerits have been pointed out, and conſequently thoſe of all the univerſities in Europe which ſervilely adopt them.

To cut ſhort our remarks upon univerſities; it will appear, from the ſlight ſketch we have given of their firſt inſtitution and progreſs, that, upon the whole, they were at firſt, and for ſome time after, productive of good.

But they ſoon degenerated into ſo many intereſted corporations; in which the principal object of purſuit of the ſeveral profeſſors was fame or emolument, without regard to the means by which they might obtain theſe. They meant the doctrines which they delivered, as ſo many ſtandards of the reſpective arts or ſciences which they taught. And their ſucceſs in this has at all times been too conſiderable. One baneful effect of the leſſons in univerſities has been, the acquirement of the knowledge of others, good or bad, and almoſt a total ſuſpenſion of exerciſe of judgment. Hence bigotry in religion, and prejudice in philoſophy, have been almoſt the only reſult of univerſity labours. Few men ever exerciſe any judgment of what they are taught: They ſet out with the preſumption that it is true, and every thing they meet with in their progreſs ſerves to feed and confirm that preſumption. Fewer men think for themſelves: and,

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in conſequence of that, attempt improvement or diſcovery. Nay, ſo little do the bulk of mankind think themſelves qualified for making diſcoveries, that on the contrary, an uniform opinion prevails among them, that ſo high a department of the intellectual power is allotted by nature to a few men, whoſe ſublimity of genius carries them far above the common level of mankind. Such is their deſpair of ſucceſs in this way, that they think every diſcovery laſt made, is the laſt that ever will be made. All this is a moſt unfortunate belief. If a right method were followed; if the errors of others were detected, prejudices avoided, the rubbiſh of falſe knowledge cleared away, and accurate obſervation inſtituted; a great part of mankind would find themſelves qualified not only for making improvements, but diſcoveries. The cauſe of their failure, and of their confirmed belief in their own inability in that reſpect, is no fault in themſelves, but in their education. The fetters of prejudice with which they were bound in univerſities, are too ſtrong to be broke off by ſuch feeble exertions of mind and exerciſe of judgment, as they have been accuſtomed to. They are in the ſituation of a traveller, who has induſtriouſly been directed into a wrong road, and purſues it becauſe he thinks it the right one; conſequently he never attains the place of his

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deſtination. After immenſe wandering, he finds himſelf fatigued, and takes up with any place that firſt occurs to him; thinking the one which was his firſt deſtination, too diſtant for his exhauſted powers to come up with. Such ſtudents reſemble a perſon travelling from the Upper Egypt to Abyſſinia. He has immenſe tracts of land to paſs; and there is but one obſcure path, and a certain method of travelling, to get thro' theſe. He miſſes that, and therefore concludes that this beautiful country is inacceſſible. The application of all this to our ſubject is plain. It has been the fate of learning, whether from books or leſſons in univerſities, to beget an inſuperable bias in the mind towards error, rather than to point out the way to truth. This is the cauſe of the regretted torpor of the human mind in its inquiries after truth. This is the effect of the ſources of error which we have mentioned, and particularly of the modes of teaching in univerſities. They have had lavishly beſtowed upon them the titles of *Seminaries of learning*, *Almæ Matres*, *The promoters of ſound knowledge and good morals*; while, inſtead of theſe, they have uniformly merited thoſe of *Seminaries of error*, *Diræ Matres*, *Perverters of truth and knowledge*. Was it the Doctors of the Inquiſition, whoſe theology was derived from univerſities, and conformable with what was taught there, or

Galileo,

Galileo, whom they perſecuted; to whom we are indebted for the valuable book which we have under the name of this great philoſopher? Who gave rules and directions for the inveſtigation of truth in the ſeveral departments of ſcience? Was it univerſities, or my Lord Bacon? Who gave further rules for the department of natural philoſophy, and carried them both into execution? Was it univerſities, or Sir Iſaac Newton? Who diſcovered a proper method of cure of phlogiſtic diſeaſes? Was it univerſities, or any univerſity whatever, or any one of the alexipharmac age of phyſicians? or was it not Dr Sydenham? And, if this celebrated phyſician carried his new method of cure too far, and applied it to many diſeaſes where it proved a hurtful practice; have phyſicians had the ſecondary merit of detecting this erroneous extenſion of his practice? which they might have had, and remained ſtill as much inferior to him, as the detection of error is a more eaſy taſk than the diſcovery of truth. No: Inſtead of this, they have ſubtilized and refined upon this erroneous part of their leader; they have confirmed it, given it the ſanction of the authority of their chairs, and done their beſt to reduce it to rule and ſyſtem. If phlogiſtic diſeaſes are, as they have been proved to be*, ſcarcely in the proportion of one to twenty of

* See Brown's Lectures, and the manuſcript part of his text.

of the newly discovered form of disease, the asthenic, either in frequency or fatal tendency; who has had the merit of making a discovery of such essential importance to mankind? was it universities, or who was it *?

If to the extent of morbid affection an efficacious method of cure has been discovered, and that of local diseases surprisingly improved, and all this confessed to be diametrically opposite to the generally received one, and that of *a certain university*; who are we to thank for the invention of so great a blessing to our species? those who have employed every artifice to procure his ruin, and that of his doctrine; or he whose magnanimity enabled him to face the storm, which his love of truth and ingenuity had brought about his ears? So valuable is this discovery, that scarce a day passes without confirmation of its truth, in the complete cure of a disease that was baffling the present practice. This is a truth that can be authenticated, if ever it should be disputed, and there should therefore be occasion to produce the proofs in support of it.

" Again, in the customs and institutions of
" schools, universities, and the like conventions,
" destined for the seats of learned men, and the
" promotion of knowledge, all things are found

opposite

* See El. Med. Brun. p. 126, to 142; and 147, 150, 153, and par. ccciii.

“ oppoſite to the advancement of the ſciences ;
“ for the *readings* and *exerciſes* are here ſo ma-
“ naged, that it cannot eaſily come into any one's
“ mind to think of things out of the common
“ road. Or, if here and there one ſhould ven-
“ ture to uſe a liberty of judging, he can only
“ impoſe the taſk upon himſelf, without obtain-
“ ing aſſiſtance from his fellows ; and, if he
“ could diſpenſe with this, he will find his in-
“ duſtry and reſolution a great hindrance to the
“ raiſing of his fortune. For, the ſtudies of men
“ in ſuch places are confined, and pinned down
“ to the writings of certain authors ; from which
“ if any man happens to differ, he is preſently
“ reprehended as a diſturber and an innovator.
“ But there is ſurely a great difference between
“ *arts* and *civil affairs ;* for the danger is not
“ the ſame from *new light* as from *new commotions.*
“ In civil affairs, it is true, a change for the bet-
“ ter is ſuſpected, through fear of diſturbance ;
“ becauſe theſe affairs depend upon authority,
“ conſent, reputation, and opinion, and not upon
“ demonſtration. But arts and ſciences ſhould
“ be like mines, reſounding on all ſides with
“ new works and farther progreſs. And thus
“ it ought to be, according to right reaſon ; but
“ the caſe, in fact, is quite otherwiſe. For, the
“ abovementioned adminiſtration and *policy* of
“ ſchools, and univerſities, generally oppoſes,

 and

"and greatly prevents the improvement of the
"sciences *.

From all that we have ſaid, the reader will be at no loſs to perceive, that inſtitutions of ſocieties, whether of a public or private nature, upon however good principles they may have at firſt been formed, are all liable to degeneracy; and, in fact, do all, ſooner or later, commonly too ſoon, degenerate, and fruſtrate, nay, pervert, their original intention. The good obtained from any of them, from public ſtates to univerſities, is ſeldom permanent, ſeldomer complete. The more common caſe is, when we trace great ſervices to mankind to their proper ſources, that they are chiefly found to originate from the merits of a very few men, very often of one alone. The generalſhip of Miltiades in the plain of Marathon, where ten thouſand Greeks, led on to the field by him, defeated two hundred thouſand Perſians; the admiralſhip of Themiſtocles, in bringing on the battle of Salamis, which terminated in the expulſion of the Perſians from Greece, and converted their offenſive into a defenſive war on their weſtern frontiers; the ſuperiority the Theban ſtate acquired over the reſt of Greece, while Epaminondas was at their head, and their ſubjection to one or other of theſe, both before and after

* Nov. Org. Scient.

after; are so many instances of the greater advantages redounding to society from the abilities of an individual, than from all the rest of the state. And, surely, the quarrels of the senate of Carthage, and the ascendant which the faction of his enemies gained over his friends, could not be very favourable towards the victories which Hannibal obtained over the Romans. It is needless to multiply examples; the atchievements of a Cæsar, of a Julian, of a Cromwell, of a Peter the Great, all point to the same conclusion, That for the highest advantages, from which society has reaped benefit, they have been indebted, not to associations of men, but to the superior genius and abilities of a few individuals.

APPEN-

APPENDIX.

AS many of the opponents of the new doctrine, are, as far as their knowledge of it enables them, coming about, and imitating the practical part of it, without confessing to whom they are indebted for such an improvement; and as nothing is more probable, than that, in a short time, this practice will be very general: To do justice to my preceptor, to whom I, as well as all his other pupils, think ourselves so highly indebted; and at the same time to prevent any dispute about the author of any part of this discovery; since such is the course of human nature, that first opposition is made to every great discovery, and when it has established itself from its own merit, then a dispute arises whether the discoverer is, or is not, to be deprived of the credit of his discovery: I therefore thought proper to subjoin to the foregoing account of Dr Brown's doctrine, a very few cases, out of the many which might be given; from which the reader may receive a full illustration of whatever we have said, respecting either the hurtful tendency of the present practice, or the salutary effect of the new one.

It

It is proper further to inform the reader, that, towards the latter end of the preceding account of this doctrine, having occaſion to bring in ſome caſes in illuſtration of our ſubject; I did not complete the view I there entered into, becauſe, upon recollection, I began to perceive that it rather belonged to this place, and would be brought in with more advantage and clearneſs to the reader at the end of it. I was further interrupted, by being obliged, in the ſecond caſe of inflammation, or tendency to this, to enter into a vindication of my own character, as well as that of Dr Brown, at great length: In the detail of which, with a view to the expoſition of private ſocieties and corporations of men, as often degenerating into a plan of conduct diametrically oppoſite to the firſt intention of their inſtitution, I inſenſibly ſtumbled upon the ſubject of government. From that I proceeded to what was more nearly allied with the ſubject of this inquiry, the conſideration of thoſe aſſociations called *univerſities*. The former diſcuſſion was meant to illuſtrate the latter: And if it has done ſo, it will now appear not ſo remote from the general ſubject, as it might ſeem at firſt.

Before the 131st page of this book, the conſideration of inflammation, as appearing in different caſes of idiopathic diſeaſe *, had been ſtarted; and

* See above, p. 130, and 131.

and to the extent of two of these cases discussed. The cases which remain, will be resumed in the part of this appendix which we have mentioned.

ALEXANDER HALL, *Æt.* 23.

His stools are to the number of 10 or 12 daily. They are in small quantity at a time, white and slimy, but have never been observed tinged with blood. He complains, however, of pains about the umbilicus, which however are not constant; borborigmi, severe tenesmus, and great sickness, especially when called to stool. These complaints commenced 12 months ago, and since that time have never altogether disappeared; it is only, however, within these 12 weeks that they have become so severe as to prevent his working, and to confine him to bed. He has lately been a patient of the Public Dispensary, and has taken many medicines with but slight alleviation of his complaints. He is at present so weak, that he can hardly stand; and even when he sits erect for some time, he becomes faintish to a great degree: He is very much emaciated.

Cap. hor. som. H. A. c. gtt. xxv.

R. Ol. Ricin. ℥ij.

Spir. Sacch. Jamaic. ℥ss. M. quatiendo probe.

Cap. semunciam om. hor. donec alv. dejec.

Incip. cras hor. 8ª matutina.

P. 96.

13.

P. 96. Phyfic has operated well, without gripes. Slept well laft night. Let him have butter-milk morning and evening, and rice-milk for dinner.

14.

Diarrhœa has been very fevere, with tenefmus and flimy ftools. Complains of the butter-milk's being very four, and of increafing the gripes and purging. Slept ill. Complains of extreme debility, ficknefs, and faintings.

R. Aq. Cin. ten. fort. aa ℥ifs.
Tinct. Lavend. c. ʒij. L. L. gtt. l.
Syr. fimp. q. f. ad grat. dulced. Cujus cap. alteram partem ftatim, alter. hor. fom.
Cap. Jul. Siftens. c. 2^le L. L. ℥fs. 2da quaq. hor. Incip. cras. Hab. Vin. Rub. pur. ℥viii. in die.

15.

Was relieved on getting the firft half of his dofe; has continued eafy ever fince; has had four ftools fince this time yefterday; longs for a bit of more favoury meat than his milk-diet. Let him have a bit of thin beef-ftake for dinner. Rep. Jul. Siftens.

16.

Had fevere gripes, with much tenefmus and frequent ftools. Omr. Jul. Siftens. Injr. ref. enem. ex aq. tepid. ℔j. Cap. Hauft. A. alter. part. ftatim, alt. hor. fom.

Cap.

Cap. Decoct. Cort. Per. ℥iii. 4 in die.

17.

P. 100. Severe gripes and frequent ſtools to-day. Fæces more copious, and ſome ſcybala diſcharged ſince the clyſter. Was much relieved by his draught yeſterday. Rep. Hauſt. dimidiam ſtatim; quod reſtat, hor. ſomni. Rep. enem. ex. aq. tepid ℔j. veſp. He complains of much thirſt; let him have an orange every day, toaſt and water for drink, and a little beer for trial.

18.

Eaſy from the time he took the firſt draught till this morning; gripes have been pretty ſevere ſince that time; great teneſmus; frequent ſtools, but little diſcharged. P. at 108. He ſweats at preſent, ſeemingly with the pain.

℞. Aq. Font. ℥iij.
Aq. Cin. Ten. ℥ijß.
Tinct. Lav. Syr. Com: aa. ʒij.
Liq. Laud. gtt. c.
M. Cap. ʒij 3 in die. Incip. ſtatim. Omr. Decoct. Cort. Repr. Vin.

19.

P. as yeſterday; very frequent ſtools, and ſevere gripes.

Repr. Jul. heri præſcript. C. L. L. gtt. c. Augr. Vin. ad ℔j. in die.

20.

Pains relieved; no ſtool ſince we ſaw him yeſter-

yesterday, till 4 in the morning; frequent ſtools and teneſmus, from that till this; little gripes even then. No teneſmus or diarrhœa ſince he took the draught in the morning. Slept pretty well in the night, and diſpoſed to ſleep through the day, if not diſturbed. P. 96. Rep. Jul. ut heri præſcript.

21.

Slept tolerably well till within an hour and an half; ſcarce any gripes; but they begin to threaten now. P. 102. Deafneſs and tinnitus aurium came on laſt night when he ſat up.

Rep. Julap. Anodyn. ſtatim. Rep. Decoct. Cort. u. a. præſcript. ad ℥iij. 3 in die.

22.

Gripes ſevere; about 20 ſmall thin ſtools; ſleeps but little. P. 108.

℞. Aq. Font. ℥iv. Cinnam. ſimp. ℥ij. Tinct. Lavend. c. ʒiij. Laud. gtt. 180. Syr. ſimp. ℥j. M. f. Julap. cujus cap. ℥ij. 4 in die. Repr. Vin. Omr. reliqua.

23.

Eaſier of gripes, but weaker; Pul. debil. frequentes, loquela omiſs. ipſe moribund. Omr. med. Contr. vin.

Deſired to be diſmiſſed on the 23d at night; he was then carried home, and ſurvived 40 hours after diſmiſſion. Upon the 26th the body was opened, and in the abdomen the glands of the me-

mesentery were found in general enlarged and indurated, some of them swelled to the size of a pigeon's egg. Two very considerable constrictions were found in the ileum; at which the internal surface of the gut was ulcerated, and covered with excrescences. The colon was a continued chain of abscesses, so as to form like one mass of ulcerations. In some places, the matter had eroded the coats of the intestines; but was prevented from getting into the cavity of the abdomen by firm adhesions to the peritoneum, which thus formed part of the cyst. The adhesions were very universal; and in most places so strong, that on any attempt being made to separate them, the gut gave way. In one or two of the large cysts a considerable quantity of chalky-like matter was found. The rectum seemed to be perfectly sound, as were the kidneys and assistant viscera.

Observations.

The first inquiry that should always be made when a physician first appears at the bedside of a patient, is, Whether the disease be local or idiopathic *; and, if it should appear the latter, the next question should be, To which of the two general forms of idiopathic disease it belongs. These are distinctions of fundamental importance; the omission of which must lead the practitioner into

* Elem. Med. Brunonis.

into a very random practice. But ſo little are phyſicians qualified for making ſuch diſtinctions, that, in general, they have no adequate idea of the difference betwixt idiopathic and local affections. Of this we have a notable inſtance in the univerſal practice of confounding with the proper phlegmaſiæ, which are idiopathic affections of the phlogiſtic form, a number of local ones, called *itides*; all of which, except phrenitis, which is a higher degree of ſimple ſynocha, and pleuritis, and ſometimes carditis, which are comprehended under peripneumony, are local affections *. They are to be conſidered as local, or ſymptomatic of different idiopathic affections, becauſe they all originate from organic affection of a particular part. And, though they are followed by a general tumult of the ſyſtem, ſuch as is denominated *febrile ſtate*, or *pyrexia*, they are ſtill to be reckoned equally local as if the morbid ſtate did not extend beyond the part firſt affected. They eſſentially differ from idiopathic affection, in the following circumſtances: Firſt, they ariſe not from the powers productive of idiopathic affection, which are powers operating upon the living principle of the whole ſyſtem, and not neceſſarily affecting the organization of any part, or only affecting it in the progreſs of the diſeaſe: Secondly, they conſiſt in a certain altera-

 tion

* Elem. Med. Brun. ccxxx.

tion of the living principle, in an increafe or diminution of excitement. Thirdly, they are only to be removed by powers operating upon the whole body, by diminifhing or increafing the excitement; whereas local affections arife from powers which have produced lefion of organization in a part, by wounding, eroding, or compreffing the veffels. Fourthly, the whole difeafe confifts in the affection of the part when once produced. And, though a more general affection may be diffufed over the fyftem, in confequence of the local; it is only, however, a fymptom of the local, and not, as in the idiopathic cafe, originating from the general powers. Fifthly, the cure is effected, by powers which alter not the general ftate of excitement, but that remove the morbid ftate of the part firft affected. It is further to be obferved, that idiopathic difeafes, if not too long neglected, are almoft always in the power of a judicious phyfician; while local ones, efpecially internal, are placed out of the reach of all the means he can employ to reftore health. By thefe marks are the difeafes which we have mentioned to be diftinguifhed from each other; and the diftinction is of effential confequence. I can cure a peripneumony, by bleeding, purging, abftinence, &c. which are powers operating by diminifhing excitement over the whole fyftem, and not in any eminent degree

acting

acting upon any part: But I have not the ſame command of gaſtritis; which, if it depends upon inflammation ariſing in conſequence of a wound or eroſion of a part of the ſtomach, or from the preſſure of a tumour, can only be removed by removing the inflammation, which is the ſole cauſe of all the morbid ſtate that occurs, and it is frequently not in my power to change this original morbid ſtate.

With reſpect to the preſent caſe, we diſcern a diarrhœa accompanied with the ſymptoms related: But we know that the whole concourſe of ſymptoms in this caſe, may proceed from very different ſources. There is an idiopathic diarrhœa ariſing from debility over the whole ſyſtem, predominant in the inteſtinal canal; and to be removed by remedies which invigorate the whole ſyſtem, and, in conſequence of that, the labouring part. At other times, certain local affections, as inflammation, ulceration, and ſtricture, whatever way produced, are the only cauſe of the diarrhœa and concomitant ſymptoms. To this caſe the indication of cure, applicable to the other, will not apply: In place of which, the only radical cure is to remove the original local affection; which may ſometimes be effected by nature, but is always above the phyſician's art. It is to be feared that our practitioner here has not been duly appriſed of the diſtinctions we have pointed

out: For though it might be difficult to say for certain, whether this case, when it came into his hands, was idiopathic or local; still it was to be expected that he would make the inquiry; and if he had done so, he would have found several marks, affording just reasons for the conclusion that the affection was local. The first I shall mention is, the long standing of the disease. From which a natural suspicion arose, that it had something more fixed for its cause, than the mere degree of excitement, which, with or without medical treatment, is so liable to vary within any considerable space of time, and produce proportionable variety in the state of health depending upon it. There is no permanent diathesis. On the contrary, the excitement may not only vary in the course of a year or a month, but of a week, a day, or an hour, according as the exciting powers have been applied in a higher or lower degree. Surely, if one person indulges for a number of days in generous diet, and another totally abstains from it, the same degree of excitement is not to be expected from the latter as from the former. Or, if the same person at different times should indulge and abstain, will not his excitement be proportionally increased or diminished? The permanency, therefore, of this case for a twelvemonth in one degree or another, but in a very high degree for twelve weeks past,

gave

gave juſt reaſon to ſuſpect that fixed local affection was the cauſe of it. Further, if the caſe had been idiopathic, as it was treated in the Diſpenſary with all the variety of medicines which could be thought of as promiſing alleviation or removal of the diſeaſe; one of two inferences muſt be drawn from the cure not being effected, upon the ſuppoſition of the diſeaſe being idiopathic. One is, that the phyſicians in the Diſpenſary did not know the proper method of curing an idiopathic diarrhœa: Or, if it be granted that they treated it properly as ſuch, this other inference is inevitable, That the diſeaſe was not idiopathic. It is fair to make ſome allowance to the Diſpenſary phyſicians, for their not having diſcerned the true nature of the diſeaſe at firſt. For, tho' the long ſtanding of any diſeaſe gives juſt ſuſpicion of its local nature; yet, both in other caſes, and in this of diarrhœa, there have occurred inſtances of diſeaſe remaining a conſiderable ſpace of time upon the general indication of treating idiopathic affection: Which was proof that the diſeaſe had been idiopathic through its whole courſe, and not at all local. When this caſe, therefore, came into their hands, it was of much leſs ſtanding than when it was taken up by the clinical practitioner; and afforded proportionally leſs reaſon for imputing it to a local cauſe. And though they had no reaſon to conclude that it

was for certain local; since they also were not certain of the contrary, they were justifiable for making the only trial which could at once ascertain the true nature of the disease, and give the patient any chance for recovery. By supposing it local, they could do nothing for the patient; but by treating it as idiopathic if it had really proved so, they used the only proper means of restoring the patient's health. This accordingly was done; the disease yielded not, but became more obstinate and violent in proportion to its progress: The last physician, therefore, in the Dispensary who treated it, and who has a competent knowledge of the difference between idiopathic and local affection, finding his remedies, which, if they are such as I have been told they were, were very suitable to the disease as an idiopathic affection, not followed with the usual success in that and similar cases, very judiciously concluded from that very circumstance, that the affection was local, and therefore irremediable; and accordingly dismissed his patient.

After so just an estimation of the nature of the disease, is it not highly probable, that rashness, and ignorance of morbid phænomena, and, a natural consequence of these, the vanity of making a cure where another had failed, were the only reasons that can be adduced for the clinical practitioner's selecting this patient, and persisting in

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haraſſing him with a variety of remedies and drugs, that evidently appeared not only uſeleſs but hurtful, till near the very hour of his death? Idiopathic diarrhœa, as we have defined it, if it ſtill remains idiopathic, and has not, as may be the caſe from neglect or maltreatment, produced incurable local affection, or degenerated into it, admits of a very manageable and ſucceſsful plan of cure. The indication of cure is, ſimply, to increaſe excitement over the whole ſyſtem; and therefore in the alimentary canal, the affection of which is the only part, and a ſmall one, of the general affection ſubſiſting in the whole ſyſtem. In executing this indication, the only thing next to be conſidered is the degree of debility producing the cauſe, in order that a proportional degree of exciting or ſtimulant power may be applied for the cure. In ſuch caſes of diſeaſe depending upon debility, when the appetite is loſt the debility is underſtood to be very conſiderable; and there is no acceſs to the only durable and radical remedy, that is, the ſtimulant operation of generous diet, and drink, and exerciſe, ſuited to the ſtrength. In order, therefore, to enable the ſyſtem to bear theſe remedies, and receive the full advantage of them, recourſe muſt firſt of all be had to certain powers which are ſtimulant in a higher degree, but with leſs duration. Theſe are, ſtrong drink, vinous or ſpirituous, more or

 leſs,

efs, or not at all, diluted, according to the exigency of the cafe; opium, mufk, camphire, æther, and electricity. They are to be ufed; therefore, in fucceffion or conjunction, and repeated and varied fo, as that the excitement is never allowed to fink; and laftly, gradually diminifhed, till the debility is fo far got the better of, that the appetite for food, and the power of digefting it, are reftored. While thefe are imperfectly reftored, fome degree of the other ftimulants, which we diftinguifh by the name of *diffufible*, ought ftill to be adminiftered, to compenfate for the deficient ftimulus arifing from the alimentary matter. But when they are perfectly reftored, it is then that there will be no farther occafion for the ufe of the diffufible ftimuli, than to allow a few glaffes of generous drink after the principal meals, and to avoid over indulgence in vegetable matter, and every thing that is acid or acefcent, or liable to excite a fermentation in the alimentary canal. The principal article, therefore, of food, fhould be animal matter, and efpecially flefh, in all their varied forms and preparations; only guarding againft fuch of that kind of matter as is hardened, and fomewhat corrupted, from its own nature or preparation. It will be underftood, that in this as well as every other cafe of debility, due regard muft be had to the ftimulus of air, and a certain ftimulus arifing from

a proper management of the mind and paſſions. This indication and plan of cure, while it is adequate to the removal of idiopathic diarrhœa, increaſed or diminiſhed according to the degree of diminution of excitement conſtituting each caſe, applies to every caſe of idiopathic debility, to every aſthenic diſeaſe whatever.

There is a farrago of drugs and remedies preſcribed in this caſe, that have neither any common operation among themſelves, nor correſpond to any ſimple indication of cure. The hauſtus anodynus, which is firſt preſcribed, is a high diffuſible ſtimulant; and, were the diarrhœa idiopathic, if given in ſufficient quantity, is a very proper indication. But the objection to it here is, that the diſeaſe is neither idiopathic; nor would the remedy be of any effect, though it were ſo, upon occaſion of the ſmallneſs of the doſe. The ſame thing is to be ſaid of the ſmall quantity of rum conjoined with the ol. ricini in the purgative preſcription; where the quantity of rum is too inſignificant to operate with ſtimulant effect to be ſerviceable in the affection as idiopathic, and the caſtor oil would have anſwered better for the local affection if it wanted its purgative quality.

In ſhort, as we ſaid upon a former occaſion, the intention of the phyſician, who excites purging to cure purging, is incomprehenſible

upon

upon any rational principle, and hardly confiſtent with the random practice of empiriciſm. There is only one purgative known, for the giving of which in looſeneſs of the belly ſome apology might be made. It is rhubarb; which, though it produces purging, is commonly ſuppoſed to brace the inteſtinal canal, and obviate purging in the end by its tonic quality. It may have ſome ſuch effect; but in ſo far as it purges at all, it is improper; and its tonic effect can be much better, and ſooner, obtained from remedies poſſeſſing a higher degree of ſtimulus.

In the report of next day, we are told, that the patient ſlept well, and had no gripes in the courſe of the night, and that the phyſic operated well. But the obſervation here is, that the phyſic would have operated better if it had not operated at all: and the ſleep that enſued might be the effect of ſome circumſtances which are not taken notice of; but it could hardly be the effect of the remedies. I ſuppoſe the patient had no gripes, becauſe, being aſleep, he was inſenſible of them. It is impoſſible to conceive the intention of our practitioner in preſcribing the next articles; which are, butter-milk and rice-milk morning and evening. If his practice was empirical, I would aſk him for a ſingle inſtance of butter-milk having been of any uſe in any morbid affection of any kind, whether idiopathic or local;

local; unlefs to anfwer the purpofe of a cooling drink, to fuch perfons as had a craving for it, and agreed with it; and in certain cafes of phlogiftic difeafe, in which every degree of ftimulant or active operation was contraindicated. Again, upon any rational principle, I would afk our clinical practitioner, What kind of operation he expected from his butter-milk? He furely could not expect a ftimulant one from it, if he meant to treat an idiopathic diarrhœa; and any effect of it upon an immoveable local affection could only be expected from its acting as a charm. His practice, therefore, with it may be charming; but it is neither rational, nor countenanced by empirical analogy. To perfons who know fomething of the nature of the human body, and of the operation of the feveral powers acting upon it, either as remote caufes, or remedies of difeafe, the event of the operation of this fubftance could not be ambiguous, upon the fuppofition of this diarrhœa being either idiopathic or local. It would increafe the former, as a debilitating fermenting power; and it could only be of fervice in the latter by acting as a bland demulcent fubftance, which are properties contrary to thofe it poffeffes. If it was given to alleviate thirft, cold water was much better fuited to anfwer that purpofe. In a word, by its tendency to fermentation in the inteftines, inftead of its

alleviating the symptoms, it was well suited to increase them all, whether as depending upon an idiopathic or local cause. And that it did so, we have direct proof in the next report. Hear the report. "The diarrhæa has been very severe, with tenesmus and slimy stools. He complained of the butter-milk's being very sour, "and of increasing the gripes and purging. He "slept ill, and complains of debility, sickness, "and faintings." These were the palpable effects of the butter-milk. They originated from its acting as a debilitating and fermenting power. And the only other article, alimentary or medicinal, conjoined with this, the rice-milk, possesses no such eminent degree of stimulus as to be suited in any degree to counteract such hurtful tendency.

To obviate such evil consequences, in the next article, we find 50 drops of laudanum, supported by 2 drachms of tincture of lavender, prescribed to be taken in two dozes, the one immediately, and the other at bed-time. This article is supported by another, to be taken the day following, which is the julapium sistens, supported by eight ounces of wine, taken thro' the course of the day. All this is very right. But why set matters wrong to put them right again? Is it not the business of a physician to do his best to remove any morbid affection at the time present

ſen. in the conſtitution? If ſo, it will follow, that it is not his buſineſs to increaſe the diſeaſe one day, and the next remove the miſchief which he himſelf has occaſioned. Such a practice may prove, that the physician is capable of doing miſchief one day, and of removing the miſchief of his own creation the next; but it does not amount to the final purpoſe of gaining upon the diſeaſe, by doing every hour ſomething towards its removal, and ſupporting and improving that by a ſteady perſeverance in the uſe of every thing proper. As there is no permanent diatheſis in human nature, as idiopathic diſeaſe conſtantly depends upon an increaſe or diminution of excitement; ſo there is never any time to be loſt, in either * doing nothing, or ſporting with uſeleſs and pernicious preſcriptions, becauſe the effect of theſe may be undone afterwards by contrary ones. The phyſician ought conſtantly to go on increaſing excitement where it is deficient, or diminiſhing it where it is increaſed. The ſuppoſition of a *vis medicatrix* is contrary to truth; and therefore muſt not any confidence be placed in it. Depending upon the *vis medicatrix* can be proved to be pernicious wherever the increaſe or diminution of excitement might have produced a cure.

The laudanum and wine, preſcribed with the intention

* Elem. Med. Brunonis. xciii.

intention taken notice of, require a further observation. As the chief use of them is to raise the excitement to that degree which is consistent with the return of appetite; so, whenever that end is attained, there is no further demand for the laudanum, and only a demand for as much of the wine as may be still proper to support the stimulus of food, such a quantity as is commonly made use of as alimentary. This applies to cases of considerable debility. But, in the present state of this case, notwithstanding of the evident increase of debility from the effect of the butter-milk, and from the intermission of more stimulant aliment, we find some appetite still subsisting, and the patient "longing for a bit of more "savoury meat than his milk-diet." Accordingly it is graciously condescended, that he "may "have a bit of thin beaf-steak for dinner," with a repetition of his julap. fiftens. The physician should have found out this to be necessary, and should not have needed the hint which the patient's craving suggested. One of the errors of physicians is, that when they hit upon a proper remedy, they miss the benefit that might be derived from it, either by under-dosing it, or not supporting it by repetition of doses and the use of other stimuli. Had this case been idiopathic, the diffusible stimulus here administered would have been insufficient for giving the degree of

excitement

excitement which health required, both from the smallneſs of its quantity, and its not being supported by proper alimentary ſtimulus. Nay, had this laſt been employed in the quantity that the patient, from his craving, ſeemed capable of taking in, the quantity of the diffuſible ſtimulus here preſcribed, or even leſs, might have ſufficed for the effect intended. But this falſe idea impreſſes the generality of phyſicians, dogmatic as well as empiric, that it is always one thing, not one operation in common to many things, that proves the remedy of diſeaſes *. They are all empirics at bottom, in ſo far as the leading idea of dogmatiſts, as well as empirics, is, that every remedy of diſeaſe, ſuppoſed a real one, poſſeſſes ſomething that fits it for the cure of ſome particular affection, different from the operation of every other. This is to all intents and purpoſes the doctrine of ſpecific virtue held forth in its full extent. It is a moſt unphiloſophical notion, and contrary to what we can even prove to be the truth. For, with reſpect to other bodies or powers in nature, the knowledge, that we have of the ſimilarity in the operation of a few of them, creates a high probability that the ſame ſimilarity extends over more, or perhaps the whole. But, with reſpect to the powers operating upon the human body, in a work lately offered

* See the Chapter on *Analyſis*, &c.

offered to the public *, and which has not been, and in all probability never will be, anſwered, it has been demonſtrated, that they produce the whole phænomena of health, or bias to diſeaſe, and of actual idiopathic diſeaſe in both its general forms. So little room is there for the ſuppoſition, that the remedies of idiopathic affections or proper diſeaſes, for them only we call proper diſeaſes, are different in their kind of operation from each other. Till the propoſition which we have now quoted be admitted, and the falſe idea which we have refuted, rejected, there will no end of blundering both in the pathology and practice of phyſic. No cure will ever be made but by mere hap-hazard. But, as the whole muſt be random ſhooting in the dark, the only thing that can be certain *à priori* is, that the object of intention has all the poſſible chances of being miſſed. Phyſicians talk of many incurable diſeaſes; and they call them the reproaches of their profeſſion. But they are much more ſo than they know of. They are the reſult of the groſſeſt ignorance and the vileſt prejudice. This is not the place to enumerate the examples. We hope to have a convenient opportunity for that afterwards. In the mean time, the digreſſion we have made ſerves well for an illuſtration of what led us into it. The diffuſible ſtimuli of which we were ſpeaking

* Elem. Med. Brunonis.

ing are highly proper, in cafes of great debility, to raife the ftrength to that degree which enables the patient to bear the more durable, the alimentary, and receive the benefit which they naturally beftow. But when that is done, their ufe is no longer neceffary. Then it is the permanent ftimulus of alimentary matter and exercife, that can only keep up the vigour in the due degree which health requires. To apply this directly to the prefent cafe, fuppofing it idiopathic, as the patient had appetite, it was abfurd to fhuffle him off with butter and rice milk. The diet required was the moft nourifhing, ftimulant, and eafily digeftible animal matter, both in a fluid and folid form. If his appetite did not permit him to take in a fufficient quantity; by that it was to be underftood, that his excitement was ftill too low, and that there was ftill a confiderable degree of debility to be overcome. To anfwer which purpofe, the diffufible ftimuli were ftill to be adminiftered in fuch a proportion, as to compenfate for the defect of the alimentary and more durable.

We have next an injection of tepid water, and the anodyne draught continued. Which laft is propofed to be fupported by 3 ounces of decoct. of Peruvian bark, given four times a-day. The draught and the clyfter are continued next day. The draught both times gave a temporary relief.

Next day it is varied, by the addition of ſmall cinnamon-water and ſpirit of lavender. In this the quantity of laudanum does not much exceed what was given hitherto; but its effect is ſupported ſomewhat by the addition of the other two articles, and by being repeated thrice a-day. Wine is now alſo preſcribed. This ſtill had no effect. Next day the laudanum is increaſed to 150 drops, and the wine to 2 lb. through the day; the quantity of the diffuſible ſpirit being now raiſed, ſo as to come nearer to that in which the doſe can only prove effectual. We accordingly find the patient relieved while the influence of the medicine remains in his habit. This relief, however, proved only of ſhort duration, and the medicine ſoon loſt its effect; which would have been the caſe though the diſeaſe had been idiopathic. The effect of the diffuſible ſtimuli is very tranſitory, and can only be kept up by a frequent repetition of it. The giving the whole draught at two vices ſhewed the practitioner was not aware of this fact; and he committed an eſſential blunder in not ſupporting it by alimentary ſtimulus. Accordingly, though the draught is conſiderably increaſed in the next doſe, it loſt effect altogether, and the ſymptoms of death came on. The patient was opened, and the greateſt part of the inteſtinal canal was found to conſtitute one maſs of ulceration. All this might have

have been foreseen from the long standing of the disease, and from its obstinately resisting every method of treatment that could be thought of in the Dispensary. The physician there had judiciously perceived that. It was therefore very injudicious in the other practitioner to take it up. If it could be alleged in his defence, that he doubted of the propriety of the plan of cure in the Dispensary, he had no more to do, to obtain conviction, but to make trial of the idiopathic plan of cure, not piecemeal and by halves, but completely at once. And if the disease yielded not to it, then he might have been morally certain that it was a local affection. For want of that judgment, he tormented a poor dying creature for a number of days, and gave himself a great deal of very useless trouble. The error we have censured in this case is not confined to it, nor peculiar to this practitioner. We are sorry to say it is too general; and that very few physicians have any adequate notion of idiopathic and local affection, or ever think of distinguishing them: Without which, however, their practice must be altogether a random, desultory one, and often hurtful and pernicious.

JAMES YOUNG, *Æt.* 50.

April 23. 1781.

Is obliged to go to ſtool 3 or 4 times every day. His ſtools are in ſmall quantity at a time, conſiderably ſlimy; but have never been obſerved mixed with blood. He has no teneſmus; and though he complains of pain of his belly about the umbilicus, it is neither conſtant nor very ſevere. He complains at the ſame time of a very diſagreeably bitter taſte in his mouth, which obliges him to ſpit very frequently. Tongue foul; great thirſt; pulſe 100; little appetite. He is conſiderably emaciated, and much weaker than formerly. His ſpirits are alſo much dejected; he is, however, naturally of a melancholic frame of mind. The looſeneſs is of ſeven weeks ſtanding; and he imputes it to his having put on wet cloaths. The thirſt commenced about three weeks ſince; from which time he thinks he has paſſed about ſix pounds of urine. The urine is pale and limpid, and has nothing particular in its taſte.

Utat^r. Garg. emoll.

Bibat Infuſ. Lini ad libit. Hab^t. Hauſt. Anod. hor. ſom. cum gtt. xxv. Laud. L.

℞. Elect. lenit. Cryſt. Tart. aa ℥i. Syr. ſim. q. ſ.

Cap.

Cap. coch. mag. cumulat. 2da q. hor. donec alv. dejec. Incipt. cras mane.

24.

P. 96. Slept well; physic has operated three times; no extraordinary quantity or appearance of urine. Complains much of weakness and bitter taste in his mouth still. Throat sore. *Ipse fere fatuus.*

Repetr Garg. emoll. & Haust. An. hor. s. et Infus. Lini ad libit. Bibt. Potion. Cretac. ℥iv. 4r. in die. Incipt. cras.

Let him have an orange.

25.

Pulse above 100, and feeble. No stool since last night, and little gripes; slept well; thirst abated.

Repetr. Med. et habt. Aq. Card. ℥xij. in die.

26.

Three stools last night, and some threatening of a return of diarrhœa at present; pulse frequent and feeble; skin dry; bad taste in his mouth; urine natural.

Capt. Pulv. Dov. ℈i. partitis vicibus interval. 2 hor. Incipt. hor. 6. Induat indusium lanium. Fovr. crura per hor. 1. Bibt. inter sudand. Decoct. Avenar. et Infus. Lini ad libit. Repetr. Aq. Cardiac. Omittr. reliqua.

Did not take the P. Dover.

He died at 7 p. m.

THIS

This is a case of universal debility; which the symptoms of diminished appetite, dejection of spirit, and the melancholic habit of the patient, sufficiently evince. Nor is there any reason for doubting that the loose belly depends upon the same cause; since there is not the least appearance of local affection in any part of the intestinal canal. "There was no blood in the fæces, "no tenesmus; and though the patient complain- "ed of pain in his belly about the umbilicus, it "was neither constant nor very severe." On the contrary, over the whole alimentary canal, as far as any notice is taken of it, there are evident signs of a prevalence of the same debility, which is discernible in the system in general. Of this import are the sliminess of the stools, their frequency, the foulness of the tongue, thirst, and diminution of appetite. The frequency of the pulse, as far as it can be judged of from that single circumstance, is not inconsistent with the conclusion we have drawn; especially when it is considered, that the temperament of the patient was melancholic; which is a temperament distinguishable, among other signs, by a considerable slowness of the pulse. Indeed, the account given of the pulse is essentially deficient, as no mention is made of its strength, size, and fulness. Which are marks that, upon every occasion, it is as necessary to take notice of as the frequency.

But,

But, since all the rest of the concourse of symptoms denotes evident debility, we are thence sufficiently warranted to supply the circumstances so injudiciously omitted; and to conclude, that, besides the frequency, there was also a weakness and smallness of the pulse. And indeed, besides the last mentioned argument, it is impossible to conceive any excess of strength and vigour in the heart and arteries, concurring with the state of unquestionable debility prevailing in the rest of the system. We conclude therefore, upon the whole, from the state of the pulse, as well as all the other symptoms, that this is an idiopathic asthenic affection, or disease depending upon diminution of vigour over the whole system, particularly predominant in the alimentary canal. Further light would have been thrown upon the nature of the disease, and additional confirmation brought of our conclusion respecting that, if a full account had been given of the remote causes; as there is no surer means of judging of the nature of any disease, than by taking as complete a view as possible of the powers which produced it. But here, instead of that, no mention is made of any thing leading to this disease, except the patient's having put on wet cloaths. For though a hint is given of his temperament, which is said to be melancholic, that is done, not with the intention of pointing out any thing

additional, respecting the remote cause, but to shew, that the dejection of spirit is not to be solely imputed to the present morbid influence, but in a great measure to the usual habit of the patient's mind. Accordingly, no use is made of it in the plan of cure. The defects which have been pointed out in the history of this case are not peculiar to it; nor is our present historian the only one chargeable with such culpable omission. It is too general, if not universal, among physicians. And the morbid registers in the Royal Infirmary of Edinburgh afford as many proofs of it as they contain particular cases of disease. Every idiopathic affection is preceded and ushered in by a state of predisposition, of longer or shorter duration. This is commonly altogether overlooked, or so superficially handled, that no advantage in judging of the nature of the disease, or forming the indication of cure, is almost ever derived from it. They talk indeed of predisponent and occasional causes; but in such a manner as to give conviction of their ignorance of predisposition, and of the operation of every power productive of disease. Their surprise and astonishment at a proposition lately laid down, which is, That predisposition is precisely the same with morbid state, affords irrefragable proof of this; yet nothing is more true *.

This

* Vid. Elem. Med. Brun. xxvii. to xxxiii.

This capital error is clearly illustrated in the present, as well as in every, case taken from the same repository. This patient is 50 years old; a circumstance of considerable importance, since it implies a considerable abatement of vigour. The meridian of life is past with him; and proportional debility *, in so far as that circumstance goes, must be the consequence. He is of a melancholic temperament; which implies a considerable degree of predisposition to morbid debility. But neither is any use made of that. These two circumstances are mentioned as words of course, and because it is customary to introduce certain mystical distinctions betwixt the latter and another temperament called *sanguine*.

No inference is made from them in forming an idea of the nature of the disease; whereas, if physicians made the proper use of these and other such general phænomena, pointing out a state of the body pre-existent to that of actual disease, and at the same time differing from it only in degree, there would be few occasions, on which they could mistake the nature of the latter.

Observations on the Cure.

The first remark that occurs here is, That when the operation of the remedies here employed is considered, it does not appear that the physician

* Elem. Med. Brun. lxi. to lxv.

phyſician had the ſmalleſt idea of the real nature of the diſeaſe? Twenty-five drops of laudanum are indeed preſcribed the 1ſt, 2d, and 3d days; and the inſignificant ſtimulus of 12 ounces of aq. cardiaca on the 4th and laſt day. But theſe remedies, from the ſmall quantity of both, and weak quality of the latter, could not have the leaſt influence in removing a ſtate of univerſal debility. Nor does the uſe of ſuch trifling ſtimulants warrant any perſon to conclude, that the practitioner who employed them could have any view of removing that kind of morbid ſtate.

We next obſerve the infuſ. lini adminiſtered through the whole courſe of the diſeaſe, excepting on the ſecond day. This was no doubt intended to increaſe the quantity of urine. But I would here aſk the practitioner, ſuppoſing the quantity of urine increaſed to a certain degree, if he would flatter himſelf that he had for certain relieved that ſymptom, and whether he would not make any allowance for the linſeed-tea conſtituting itſelf a part of the increaſed evacuation? In the preſent caſe, the next day after the preſcription, we are told the urine is not increaſed; and though the preſcription was continued during the ſubſequent days, no mention, however, is made of its effect. We muſt therefore ſuppoſe it had none, in the opinion of the phyſician; but, in our opinion, that it had a bad one; ſince,

ſince, though an additional fluid was thrown into the habit, and, from its known tendency to paſs to the urinary veſſels, undoubtedly made a part of that excretion ; yet the excretion, as ariſing from the ordinary ſource, with the addition from this new ſource, was diminiſhed, or at beſt remained the ſame as before. There can be therefore no doubt, that the quantity of urine, as proceeding from its ordinary ſource in the habit, was in this caſe greatly diminiſhed, by a remedy intended to increaſe it.

Another remark occurring under the ſame head is the following. If diminution of urine in this caſe, as in dropſy, depended upon a ſtate of debility, what power could linſeed-tea be ſuppoſed to have in removing ſuch debility? The inconſiſtency and ſelf-contradiction prevailing in the theories of many phyſicians is aſtoniſhing, and ſuch as is not to be equalled by any other ſet of abuſers of human reaſon.—An opinion, that long prevailed in the profeſſion, and that was a very natural one, was, that taking in an extraordinary quantity of water was a powerful remote cauſe of dropſy. This opinion has of late been forgotten; and in the place of it, the prevailing one at preſent is, That drinking water, or any watery fluid, increaſes the quantity of urine, and therefore diminiſhes the cauſe of dropſy. Our practitioner's preſcription of linſeed-tea

ſeems

ſeems to proceed upon that principle. We have pointed out the error of his idea. And we have further obſerved, with reſpect to either the caſe before us, or dropſy, that it is not water that is ſuited to remove either the cauſe of the diſeaſe, or any ſymptom depending upon it. On the contrary, the only indication of cure in both theſe, and every other caſe of idiopathic debility*, is to invigorate the ſyſtem by all the powers ſuited to that effect: But linſeed-tea and water are none of theſe.

We have not the leaſt objection to the uſe of the emollient gargle. But we are again afraid, that our practitioner once more betrays his ignorance of the cauſe of this ſymptom, which he means to remove by this remedy. At firſt ſight we can diſcern, that the remedy had no effect; for the bitterneſs in the mouth remained till the patient's final diſſolution. This is another inſtance of the common blunder of practitioners in conſidering the ſeveral ſymptoms of any morbid caſe as ſo many different diſeaſes, and adopting a correſpondent variety of remedies in order to remove them. The taſte of the mouth here proceeds from a diminution of the excretion over the palate and fauces, in conſequence of debility of the heart and arteries. Its radical cure is that of every one of the ſymptoms, viz. to remove debility

* Brown's Lectures.

debility, predominant over [the] whole fyftem, and therefore in the heart and ar[teri]es. Till this effect takes place, there can be no [h]arm in the ufe of a proper gargle. But we regret, that a miftake fhould have fubfifted fo long, and been fo generally received in phyfic, that fuppofes gargles and other fimilar applications to parts, a radical means of cure.

As one of the principal fymptoms of this cafe is frequent preternatural purging, we confefs ourfelves utterly at a lofs to comprehend, upon what principles a purge fhould be employed as a remedy of purging. But, to exhibit a view unknown to our practitioner, and to too many of his fraternity, we can affert, that by whatever means purging is induced, in whatever way the firft part of its operation proceeds, it is among the few powers that operate upon the human body by a high degree of debility. It is by fuch an operation that Dr Sydenham and every intelligent phyfician have found it fo effectual in removing phlogiftic difeafes. Upon the fame principle I can explain the remarkable tendency of even moderate purging in bringing on a fit of the gout. And, from repeated proofs of the fuccefsful operation of the moft ftimulant powers that can be applied to the human body in proper fevers, we have the moft certain confirmation, that every part of the common method of cure,

which

which confifts in bleeding, evacuation of every kind, and inanition, is of directly pernicious tendency; and that, by debilitating the fyftem, already under the influence of exceffive debility. Purging, therefore, which has its ample fhare in this deftructive debilitating procefs, muft, from that demonftrable effect of it, be concluded a highly debilitating power. To the arguments adduced in proof of the debilitating effect of purging, and to many more which could be adduced, we add one, arifing from the effect of purging in the prefent cafe, where the debility of the whole fyftem is manifeftly and alarmingly increafed. Take the words of the report. "Slept well; phyfic has operated three times; "but no extraordinary quantity or appearance "of urine. Complains much of weaknefs, and "bitter tafte in his mouth ftill; *and now* his "throat is fore, *ipfe fere fatuus*." Thefe are all fymptoms of a high increafe of debility. And, inftead of repetition of the remedies we have been fpeaking of, with the fubftitution of an infignificant article in place of the purge, they require to be treated by remedies of the higheft degree of ftimulating and invigorating operation. On the third day we find the debility ftill increafing, in the additional circumftance of feeblenefs of the pulfe. For which provifion is made by the

the addition of a[...] ij. to the remedies laſt preſcribed.

We are now come t[...] t part of the ſcene, or rather the laſt ſcene [...]is tragical act. In proof of the inſignificance which we mentioned before, of the trifling doſe of laudanum, and of the cordial water, the diſeaſe now attains to the height of its debilitating career. The purging returns; the pulſe is frequent and feeble; the ſkin dry; the bad taſte remains. When we conſider the riſe and progreſs of this diſeaſe, and the cauſes aſſigned for its appearance, we are puzzled to the laſt degree to find an adequate cauſe for this rapid progreſs of debility, ſo unexpectedly terminating in death. Upon ſuch an occaſion, we do not however think ourſelves reduced to the neceſſity of chiming in with the common obſervation, That death will baffle the beſt efforts of the phyſician: For, though that is often certainly true, it is oftener falſly applied, and laid hold of as an apology for the phyſician's evident miſconduct.

The *petitio principii* of the medical profeſſion, when their patients recover by any means whatever, is, That it is from their judicious treatment; when they die, That it is owing to the inſuperable force of the diſeaſe, and the incurable failure of nature. We pretend, however, to hold a very different opinion upon

too

too many occaſions [illegible] ecovery and death, as occurring upon [illegible] on practice of the profeſſion; and w[illegible]end, that there is not the leaſt cauſe o[illegible]nder in the ſo frequent fatality of that practice. On the contrary, the only wonder is, that any ever eſcape it.

To conclude our remarks upon this caſe: We can diſcern nothing in the powers alleged to have induced this diſeaſe, or in the habit of the patient's body, ſufficient to account for its unexpected and fatal period. But we can with clearneſs perceive, that, with the exception of two articles rendered inſignificant by the ſmallneſs of the doſe, the whole method of treatment here was not only improper and hurtful, but diametrically oppoſite to the only ſalutary one, and that it might be an adequate cauſe of death. The diſeaſe conſiſted in debility of the whole ſyſtem, particularly in the alimentary canal; conſequently the indication of cure was to remove that debility, and raiſe the powers of nature to the degree in which health conſiſts *. The remedies correſponding to that view are the moſt highly ſtimulating and invigorating, ſuch as opium, wine, the moſt bland and nutrient alimentary matter, firſt in a fluid, and afterwards in a ſolid form; and, in the convaleſcent ſtate, gentle exerciſe ſuited to the ſtrength, and ſupported by a ſhort

* Elem. Med. Brunon. lxxxv.

short course of the Peruvian bark. Laſtly, to prevent any return of the diſeaſe, a full nouriſhing diet, ſupported by the moderate uſe of generous drink after meals, with a proper management of temperature, and keeping the patient cheerful, with moderate though varied exerciſe of his mind, was the plan to be purſued.

BERNARD STEWART, *Æt.* 28.

April 6.

UPON the 3d inſtant, after returning from his exerciſe, found himſelf attacked with languor and laſſitude, great headach and pains over his body, and great nauſea, and ſome vomiting. That night he complained much of thirſt, heat, and great reſtleſſneſs. Theſe complaints have continued ever ſince. His pulſe is 96. Tongue dry and foul; appetite gone. He had an emetic on the 5th, which both vomited and purged violently. The diarrhœa has continued ſince. His ſleep has been much diſturbed; he has conſtantly wakened with a ſtart.

Cap. P. C. Peruv. ℥j: 3^{tia} quaque horæ ex vin. mixto.

Hab. Vin. Rub. ℔i. Aq. font. ℔ſs.

Hab. H. An. c. gtt. xxv.

7.

Pulſe to-day 84. Tongue clean and moiſt; has

has thrown up every dose of bark he has taken, even when he took but ℈ſs. Threw up bitter ſtuff, and has a bad taſte in his mouth. Slept ill; uneaſy dreams; ſkin hot and dry.

Cap. Sol. Antim. ℥ſs. om. ½ hor. ad vomit. uſque. Incip. ſtatim. Om^r. Cortex. Rep^r. Vin. & fotus, & H. A.

8.

Solution operated well both ways. Pulſe to-day under 90. Tongue moiſt and clean; ſkin dry; heat moderate. Frequent nauſea and vomiting on taking any thing into his ſtomach; but he retained his breakfaſt.

Cap. 3^tia quaq. hora Hauſt. Salin. inter effervefcend. Rep^r. Vin. mixtur. Bib^t. frigidum ad libit.

9.

Pulſe about 84. Tongue clean and moiſt. Countenance and voice natural. Frequent ſevere bilious vomiting; vomiting on taking any thing into his ſtomach, even the ſaline draught.

Cap. ſtatim Pil. ex Op. puri gr. iß. & poſt ½ hor. cap. ℥iv. Solut. ſequent.

R. Sal. Glaub. ℥i. Cryſ. Tart. ℨſs. Solv. ex Aq. bull. ℥xv. & adde Aq. Cin. ten. ℥i. Rep^r. Solut. ad ℥iv. 2da quaq. hora donec alv. dejec.

10.

Pulſe 84, and weak; vomiting ſcarce checked by

by the pill. He threw up a little of each dose of his salts; but retained enough to purge him frequently through the night. Vomiting stopt for about 13 hours after taking a pill ex Op. Pur. gr. i. Pil. è Cicut. gr. iv. Has thrown up the saline draught and wine every time they have been given him to-day; vomiting still bilious.

Cap. hor. 4ta Vin. Ipec. ℥i. & bibt. Inf. Flor. Cham.

Cap. hor. som. Pil. ut her. præscript. ex Cicut. et Opio. Omr. Haust. Salin. Repr. Vin. pur. ad ℔i. in die.

11.

No more vomiting since last night; great and almost constant drowsiness. Stools pass'd insensibly in bed. Great confusion and debility. Pulse 96; soft and feeble.

Abradr. Capil. Bibat 2da quaq. hora Vin. pur. rub. ℥iv.

12.

While his head was shaving, had some threatning of convulsion; after which, however, he slept very well till 4 a. m. when he awakened, and was suddenly seized with an epileptic fit, of which he died in a few minutes.

Observations.

We have a case before us of a simple and gentle typhus. All the symptoms here enumerated are such

ſuch as indicate evident debility. Theſe are, Languor, laſſitude, permanent want of appetite, nauſea, and ſome vomiting. And the effect of an emetic proving violent in exciting both vomiting and purging, and leaving an obſtinate diarrhœa behind it, is a circumſtance of the ſame import. There are not more debilitating powers in nature, whether induced by art, or the reſult of diſeaſe: And it has been peculiarly unfortunate for mankind, that phyſicians have made conſtant and large uſe of them as remedies in diſeaſes of evident, and often great, debility. Nay, ſuch has been the intemperate uſe of theſe remedies, that while in general they have been little depended upon, or altogether rejected, in the only ſet of diſeaſes in which they could be of real ſervice, the ſeveral phlogiſtic diſeaſes, one would be tempted to think that phyſicians have adminiſtered theſe moſt debilitating of all powers in exact proportion to the degree of debility that conſtituted the morbid ſtate. The great headach and pains over the patient's body, thirſt, heat, and great reſtleſſneſs, are, equally as the others, the reſult of a prevalence of debility *. But, it has been extremely unlucky for the profeſſion, that phyſicians have conſidered them as the effect of too great activity in the ſyſtem, acting as a morbid cauſe. And, ſetting out with that fundamentally

* Brown's Lectures.

mentally erroneous idea, they have been very generally misled to a most pernicious indication of cure, and a most destructive selection of remedies. In both which respects, the falsity of their judgment can be satisfactorily refuted by the following facts. First, no powers can in any case be discerned to have preceded proper fever, but such as are evidently, and commonly highly, debilitating. Secondly, if physicians will admit, what they dare not deny, that any symptoms of debility occur in such morbid cases, we can prove, that the very same powers which produce these, also produce all the other symptoms, of whatever import they suppose them to be. Consequently the supposed symptoms of activity, or morbid increased action, are referable to no other source. Thirdly, it has been proved of late by innumerable trials, that no powers but stimulant ones, and these of the most stimulating nature, and which are known at all times to possess the power of raising the system to its most excited state, are suited to remove the morbid cause, and that they are most completely adequate to that effect. The incredible success of this new plan of cure in proper fevers, and in all other modifications of asthenic disease, places the last argument above all possibility of entertaining the slightest doubt of its validity. But, while the arguments adduced are sufficient to

warrant our conclusion, we have yet another; which, although a negative one, adds great weight to the evidence arising from the other three. It is this. The ill success, or rather fatality, of fevers at all times, but especially since the practice of physic took a contrary bent to the alexipharmac practice, and still more especially at this present time, in which the pernicious debilitating plan of cure in fevers and other asthenic affections has been wrought up to all the formality of a system, affords the most ample proof in itself, that debility, not increased action, was the cause, and stimulating and invigorating powers, not debilitating and evacuant, were the only proper remedies of all such morbid cases. To which of the opposite plans of cure our practitioner here has adhered, or whether he has adhered to either, and not in a great measure confounded both, we are now to examine.

The first article in his first prescription, which was a dram of Peruvian bark taken every three hours, was proper enough in kind, but insufficient in quantity; nor was that defect sufficiently compensated by the pint of wine, weakened by the addition of half as much water, given in the course of 24 hours. The general indication of exciting vigour receives a little further support from the addition of the anodyne draught. But, so little of it was allowed, that, upon the whole,

whole, the ſtimulus adminiſtered to the patient was far ſhort of the degree that increaſing debility required. Accordingly we find the effect correſpondent to the imperfect quantity of the remedy. The nauſea of the bark has produced rejection of it by vomiting; his ſleep has been ill; his ſkin remains hot and dry; and he has been harraſſed by uneaſy dreams. Such ſleep is a conſtant conſequence of under-dozes of laudanum; and the other ſymptoms ſhew, that the general debility, which forms their cauſe, has not been perceptibly diminiſhed. It might have appeared, that ſince the laſt preſcription, though deficient in quantity, is ſuch in quality as might have occurred to a perſon whoſe indication of cure was to diminiſh debility; and, though ſuch a ſuppoſition might have been further warrantable from the author's having it in his power to peruſe a book, in which this doctrine has been delivered, and alſo from his hearing in converſation, or otherwiſe, of the new plan of cure, and its ſurpriſing ſucceſs; yet we have convincing proof, from the firſt article of his 2d preſcription, that no ſuch indication of cure ever ſolicited his attention. That unlucky heat and dryneſs upon the ſurface, the phænomena that have given occaſion to the fabrication of the doctrine of ſpaſm, has weighed with him to deviate totally from the new indication, and preſcribe an anti-

 monial

monial ſolution, forſooth, to remove this ſuppoſed ſpaſm as the cauſe of the heat and drineſs: and the debilitating operation of this loathſome drug is even ordered to be carried to its higheſt degree, that of vomiting. Nay, ſuch is the hurry and impatience to get at this charming remedy, that the patient muſt ſet about taking it immediately. The bark is properly omitted; wine, fomentation, and the anodyne draught, are continued. Here we cannot compliment the practitioner's adhering to any plan, any deſign of cure, though he might ſeem to be trimming betwixt the old and the new one. Vomiting, purging, and every tendency to ſweat or diaphoreſis, cure not a ſpaſm upon the ſurface; for that is an ideal affection altogether *. But they are moſt relaxing, debilitating powers; and therefore cannot fail to increaſe every morbid affection, which depends upon previous debility for its cauſe. Wine and opium have the contrary effect: and, had they been given in due quantity, the inconſiſtency of the practitioner's intention would have been complete; as in that caſe we could have ſaid, that he did as much ſervice with his one hand as he did harm with the other. But as the caſe ſtands, while his inconſiſtency is leſs, the miſchief of his practice is greater; becauſe the balance that the diffuſible ſtimuli, by invigorating

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* Vid. Elem. Med. Brunonis, cxix. to cxxvii.

ting the fyftem, would have oppofed to the exhaufting and weakening effect of the complicated purgation that took place, is, in a great meafure, deftroyed by the infignificant proportion of the falutary articles, while the mifchievous one has a full range over the fyftem allowed to its operation. But here we are reminded of a remark which we have made more than once upon former occafions. Phyficians never underftood difeafes of debility; and even when they made the cure of thofe, that depended upon a contrary ftate, by bleeding, purging, &c. which are evidently debilitating powers, they never once dreamed that they were removing exceffive vigour, or rather its caufe, exceffive excitement, by diminifhing that excitement. Their dream was, that the caufe of the difeafe was exceffive fluidity, and that its cure was diminifhing that fluidity.

This was wofully miftaking a remote caufe for the proximate; and, by placing this laft in the quantity or ftate of the fluids, the true caufe, which is the degree of excitement, was overlooked. Accordingly, fince the time of Hippocrates to the prefent, though the word *excitement* has been mentioned, and different degrees of it perceived; and of late a term has been invented, and a very clumfy one indeed, to denote a degree of excitement oppofite to the higheft degrees, viz.

collapfe;

collapſe; the true nature of excitement was never underſtood, much leſs conſidered as the cauſe of all the phænomena of life, in health, bias to diſeaſe, and actual diſeaſe. Inſtead of eſtabliſhing it as the true cauſe, certain effects of its varying degrees have been conſidered as ſuch. Thus, when the excitement is very high, its effect in the veſſels upon the fluids is to give the latter a certain conſiſtence in proportion to the completeneſs of the diffuſion ariſing from it. This ſtate of the fluids was ſuppoſed to be a ſtate of viſcidity; but it is in fact a ſtate of tenuity and greater fluxibility. On the contrary, in lower degrees of excitement or debility, the diminiſhed excitement in the veſſels, by acting leſs forcibly upon the fluids, renders their diffuſion leſs complete. In conſequence of which, the watery parts which are blended with the more viſcid, and kept in a proper ſtate of diffuſion, ſpontaneouſly, without any force behind, nay, for want of force all around, ſeparate from the more viſcid, and run off by the ſeveral colourleſs excretories. Here another error aroſe. As a prevalence of watery fluidity was perceived in the ſeveral excretories, it was moſt unguardedly concluded, that a correſpondent tenuity prevailed in all the reſt of the veſſels. Which was not the caſe in the blood-veſſels. On the contrary, the true ſtate of the blood, in conſequence of this depri-

deprivation of its watery parts, was a prevalence of viſcidity. But, though they had been right in their eſtimation of the craſis of the blood in theſe two caſes, they were ſtill fundamentally erroneous in miſtaking ſuch craſis for the cauſe of the diſeaſe. It was nothing but the effect of the cauſe. And, by eſtabliſhing it as the cauſe, they were led into a pernicious error in the indication of cure; which was, to attenuate the blood when too viſcid, and to inſpiſſate it when too thin. But we know of no powers which, by thus altering the conſiſtency of the blood, have the leaſt effect in removing the two oppoſite forms of diſeaſe which we have ſtated. Conſequently the only remedies ſuggeſted by this indication of cure are uſeleſs, or worſe; and no one of the remedies pointed out by the juſt indication of cure, which is to increaſe or diminiſh excitement, is in the moſt diſtant manner ſuggeſted. Upon this principle, therefore, the only plan of cure that could occur was a frivolous or pernicious one; and if at any time any diſeaſe was cured, it muſt have been by remedies to which the phyſician was not directed by his indication. And hence it is that the only effectual remedies for idiopathic diſeaſe, viz. debilitating powers in caſes of too great excitement, which conſtitute the phlogiſtic diſeaſes; and ſtimulating invigorating powers in deficient excite-

excitement, which is the cause of the asthenic form of diseases, were altogether overlooked; which was the fact to the whole extent of the asthenic cases. Or if bleeding and purging, &c. have been employed, it was not from any knowledge either of their proper operation, or of the nature of the disease; but with a view to alter the state of the fluids, or, upon some systems, to remove a local state of the solids. But while their effect upon the fluids, upon this supposition, was altogether imaginary; and though they were proper remedies for removing phlogistic diseases; from the ignorance we have pointed out, their use has been extended to all the diseases of debility, and even of the greatest debility, compatible with human life.

This detail of error, to so great an extent, was the unavoidable consequence of mistaking the cause of the disease, and the operation both of the powers producing and removing it. In the present case, the purgative solution operated very generally. For, besides the vomiting and purging, we find the tongue moist; which shews, that its relaxing effect extended over the whole alimentary canal. Such general relaxation was the certain consequence of an increase of debility, occasioned by this injudicious article. The driness of the skin is compatible with such debility, and takes place in a certain degree of it. But, when the debility is further increased, the

same

ſame relaxation of the veſſels on the ſurface, and increaſe of their excretion, alſo occurs. Of this we have certain proof, both in other affections of great weakneſs, and particularly in the advanced ſtate of proper fevers. In which, to drineſs on the ſurface, which firſt occurs, colliquative diarrhœa ſucceeds, and colliquative ſweats to this. That the increaſed ſtate of excretion, which takes place in the alimentary canal, as well as the drineſs of the external ſurface, depends upon an increaſe of debility, is clearly proved by an evident increaſe of the ſymptoms of debility, particularly the frequent nauſea and vomiting. Theſe ſymptoms were further increaſed after exchanging the antimonial for the ſaline draught; after which we find actual bilious vomiting take place.

Next, to ſtop the vomiting, a pretty tolerable doſe of opium is preſcribed to be taken immediately; and, to counteract its ſuppoſed effect of rendering the belly coſtive, a purge of Glauber's ſalt and cryſtals of tartar, with ſome ſmall cinnamon-water to render the doſes more agreeable, are ordered. Here I repeat a remark which I have already made in this caſe. It is aſtoniſhing that phyſicians ſhould give ſo frequently into the practice of undoing by one remedy the effect of another preſcribed at the ſame time. The real operation of opium is highly ſtimulant to the whole

whole body, and particularly to the alimentary canal. As purging, therefore, and vomiting, equally depend upon debility, it is equally well ſuited to check both. And though the vomiting be an urgent ſymptom at preſent, and it was therefore deſirable to ſtop it, there ſurely was no reaſon for bringing back an urgent and principal ſymptom of the diſeaſe, that is, purging. Accordingly, the purging is not only brought back, but the vomiting ſtill continues, and continues in a bilious form. This might have been eaſily foreſeen. For, as both purging and vomiting depend upon debility, though a prevalence of either might procure ſome temporary diminution of the other, yet it muſt increaſe the common cauſe. Which actually happened in this caſe; where part of the purgative was thrown up every time it was adminiſtered, and ſtill proved abundantly purgative. The opium had the effect we aſſigned to it; but that effect was counteracted by the other article. In one word, through the whole of this caſe, nothing has been done to diminiſh the original morbid ſtate. For, if ſome of the articles muſt be acknowledged to have had that tendency if the affection had been idiopathic, or to have proved palliative upon the ſuppoſition of its being local or ſymptomatic; yet they loſt their efficacy; 1*ſt*, Becauſe, upon the whole, they were not given in ſufficient quantity

tity at any time of their adminiſtration; *2dly*, Becauſe they were not ſupported either by repetition of themſelves, or alternation with other equal or more powerful ſtimulants; and, *3dly*, Becauſe their effect was conſtantly counteracted by remedies of a contrary operation, viz. evacuatory and debilitating. This laſt error has been practiſed to all that extent and variety that ingenuity, exerciſed with the ſole view of doing miſchief, could have deviſed. We have ſeen, that, with a remedy intended to check exceſſive vomiting, a purgative, which increaſes the cauſe of that ſymptom, was conjoined, and fruſtrated both the intention for which it was given, that of checking the vomiting, and counteracted what ſhould have been an intention, viz. to remove the tendency to purging. But this day, while the vomiting ſtill remains, the purgative is omitted, and an emetic is preſcribed. Thus, beſides all the other contradictions, and after repeated purging to cure purging, we ſee at laſt vomiting preſcribed to cure vomiting. The conſequence of this, next day, is not incompatible with what might have been expected. Several ſymptoms of extreme debility and approaching death now appear. And, if the patient did not vomit, it was from the ſmall degree of ſtrength, which is neceſſary to ſupport that effort. In theſe circumſtances, the ſhaving of the head, and four ounces

of wine every two hours, were ordered. The patient died in a few hours after.

Upon the whole, the treatment of this cafe exhibits a memorable example of the ignorance of phyficians of the human œconomy in health, of the change in it which conftitutes difeafe, of the nature of the feveral powers operating upon it, and producing either ftate, and of the operation of thofe powers which remove difeafe. It has been proved, that every difeafe which does not confift in a mere alteration of the organization of a part, but that depends upon an univerfal change in the ftate of the œconomy, is always reducible to one of two ftates, an increafe or diminution of the vital power, very properly denominated *excitement*; and that the only proper idea of removing fuch morbid ftate is to remove the excefs or defect of excitement. It has been fhewn, that all the powers producing or fupporting animal life operate by producing excitement, and that they only differ in the degree which they produce. It has been demonftrated, that certain functions of the animal body, fuch as the energy of the brain in thought or paffion, mufcular action, and the effect of the blood and other fluids upon their refpective veffels, though thefe alfo depend upon excitement previoufly produced, alfo contribute with other powers to the fupport of excitement. In one word, all

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animal life is ſhewn to be excitement; health a certain ſuitable degree of it, and diſeaſe an exceſs or defect of that degree. It has been proved, that, in either health or diſeaſe, whatever be the ſtate of any part of the body, that is the ſame with the ſtate of the whole; and that there never occurs in life a diverſity of ſtates at one and the ſame time. In ſhort, the whole indication of cure of every idiopathic affection, is to increaſe excitement when deficient, and diminiſh it when exceſſive. As exceſs may occur upon the principles laid down, which has been groſsly and imperfectly perceived by phyſicians, the author of this work has been the firſt to demonſtrate, that defect may alſo occur, and that it actually much oftener occurs, and that by far the greateſt number of the modifications of diſeaſe is from this ſource.

All this has led to a very new plan of phyſiology and pathology, and a very new plan of cure. Dr Brown has proved, that the reaſoning and curative part of phyſic at preſent is widely different from the truth: that they have ſtumbled upon an article or two, in their innumerable remedies, which are ſuited to remove exceſs of excitement, ſuch as bleeding and purging; but, that they never knew in what manner theſe proved ſerviceable, and that they have ever remained in complete ignorance of the cauſes of diſeaſe, depending upon de-

fect of excitement. Their ignorance in this respect is most clearly illustrated by the treatment of the case before us. It was a case of pure debility. And, though opium and wine have been prescribed in it, we have however shewn, that the most powerful of the two, opium, was not intended to increase excitement, or to affect any state in common to the whole system, but to check supposed excessive motions in the alimentary canal. In short, it was given to stop purging, and sooth pain in the intestinal canal. That this was the intention of the administrator of this remedy is evident from the face of the case, from the professional acknowledgment of physicians, and their known opinion of the operation of opium, which is, that it acts as a sedative. They have some idea that wine is a stimulant; and upon that footing avoid its use in some phlogistic diseases. But whenever they use it in cases of debility, to which its stimulant operation is highly suited, they never give it with that view. Their intention in using it is either to prevent or to remove putrefaction; or, in some cases, to act as a charm. That the latter is often their hopeful intention, can be fairly inferred from the insignificant quantity in which they prescribe it, and from their placing it in a group of remedies which effectually counteract its operation. This, too, is exemplified in the

present

present caſe; in which emetics and purgatives in large proportion are, through the whole cure, oppoſed to a very ſcanty allowance of wine. How to explain their reaſon for giving a tolerable quantity of wine a little before death, or in the very article of death, after avoiding it, or giving it in a quantity that can anſwer no effect whatever, and after uſing every kind of debilitating power through the whole previous courſe of the diſeaſe, I confeſs myſelf entirely at a loſs. As far as I can penetrate, however, into any intention at all in this abſurd practice, it is this. Till the extreme period of the diſeaſe I ſpeak of, as well as other diſeaſes of debility, they are conſtantly impreſſed with a notion, that plethora or mobility, affections proved to have no exiſtence in nature; in fevers, that reaction, as it is now called, viz. increaſed action or irritation, always occurs, and contraindicates the uſe of wine; and they at laſt begin to ſee the true ſtate of the ſyſtem, debility, when the imminent approach of death puts it out of their power to ſuſpect any thing elſe. If this be a fair account of what paſſes in their mind in their eſtimation of vigour or debility, it will ſerve as a very good illuſtration of our former aſſertion, that though debility is the moſt frequent and prevalent cauſe of diſeaſe, phyſicians have never been able to diſcover it. We conclude our remarks by obſerving, that the only

only indication of cure in this caſe was to increaſe excitement; and the only remedies adapted to ſuch indication, was the uſe of the ſeveral diffuſible and durable ſtimulants, in the proportion and order which we have ſo often pointed out. And we contend, that the method of cure which was here purſued was more effectual towards exciting a typhus fever, though there had been none in the ſyſtem before, than the original cauſe of any typhus whatever, or even of the plague itſelf.

WILLIAM GOODWIN, *Æt.* 23.

March, 30. 1781.

COMPLAINS of univerſal pains; great proſtration of ſtrength; ſickneſs at times; and loſs of appetite. Pulſe 96. Much thirſt; tongue dry, and ſomewhat foul; belly natural; ſkin hot and dry. The feveriſh ſymptoms have continued ſince the 24th, and have ſeveral times a-day been attended with conſiderable chilly fits, which have as conſtantly been ſucceeded by ſweating.

On the 24th, being upon guard, and expoſed to cold, his complaints commenced with a violent fit of ſhivering, much headach, and ſickneſs. Next day he was bleeded; after which, he thought the headach and ſickneſs conſiderably relieved.

Yeſter-

Yesterday he came into the hospital, where he was ordered an emetic, which hath purged and vomited him violently. He complains also of much cough; which is of the same standing with his other complaints.

31.

Pulse 96. He slept well. Tongue very dry; thirst considerable.

Cap. P. Cort. Peruv. ℈i. sexies in die. ex Vin. mixt. ℥iv. Incip. statim. Hab. Vin. rub. ℔j. c. Aq. font. ℔ſs. Hab. Cerevis. ad ℔iij. Rep^r. Jul. Salin.

April 1.

Pulse scarce 100, and stronger than yesterday; headach relieved. Tongue moist, but foul; no stool.

Rep^r. Cortex. & Vin. Fov^r. crura per hor. 1. & Inj^r. Enem. ex aq. tepid. ℔iſs. nisi prius, &c.

2.

Pulse 96. Skin soft. Tongue still very foul, but moist; headach relieved; glyster failed. Slept a little last night.

Cont^r. Med. Rep^r. En. vesp.

3.

Glyster operated. Slept but little; has sweated some this morning, and his skin is still moist. Tongue very foul; considerable stupor; eyes heavy and oppressed.

Om^r^. Cortex. Rep^r^. Vin. u. a. Cont^r^. Jul. Salin.

Let him have tea every morning.

4.

Pulse 120. Skin hot and dry. Tongue parched; little appetite; great stupor; is costive.

R. Calx Antim. Nitr. gr. iij. Conf. Rof. q. f. ut f. bol. f^t^. hujus modi doses iij. Cap. i. tertia quaque hora, incipiens hor. iij. Fov^r^. crura per hor. vesp. Rep^r^. Vin. & Jul. Salin.

5.

Pulse about 120, and of good strength. Powders have purged him frequently, but did not vomit; stools and urine passed involuntarily. Skin dry; tongue foul and parched; great stupor.

Abrad^r^. Capill. & lav^r^. frigida statim, & app^r^. Emplast. Epis. cap. Fov^r^. crur. vesp. Cont^r^. Vin.

6.

Epistaxis about 4 o'clock yesterday. P. 100. Skin soft; stupor and uneasiness sensibly relieved. Blister countermanded yesterday, but put on to-day. A bad night, with much delirium and complaining. Pulse to-day 112. Skin dry; tongue parched. Great stupor; and stools and urine still passed in bed; has a considerable degree of diarrhœa.

Rep^r^.

Rep^{r}. Vin. ad ℔iſs. Aq. font. ℔iſs. mixt. Incip. ſtatim. Fov^{r}. iterum crura per hor. 1.

7.

Firſt bliſter was rubbed off without effect, and a ſecond applied. Pulſe at 11, at 84; at preſent 96. Tongue laſt night tolerably moiſt; drier again to-day, but not ſo parched as yeſterday. No ſleep, and much delirium, in the night. No more ſtools; but the urine ſtill paſſed in bed. Motion of the tongue very imperfect, but eſpecially on the left ſide. Took ſome food to-day.

Rep^{r}. Vin. & fov. crur. veſp. & cap. hor. ſom. H. A. g^{tt}. xxv.

8.

Pulſe laſt night 84, at preſent 96. Tongue moiſter, but ſtill foul, and peculiarly weak on the left-ſide. No ſtool; urine diſcharged ſenſibly through the night, but involuntarily at preſent.

Rep^{r}. Vin. Cont^{r}. Thea.

9.

Pulſe laſt night 110, at preſent 84. No ſtool; urine ſometimes paſſed inſenſibly, ſometimes not. Slept ill notwithſtanding the draught; and complained much in the night. Slight epiſtaxis laſt night; complains of pain about his head and ears.

Rep^{r}. Vin. & H. A. Inj^{r}. enem. veſp. niſi prius, &c. Hab. cereviſ. ad libitum.

Motion of the tongue better.

10.

Had a bad night as uſual; had a natural looſe ſtool laſt night; urine paſſed inſenſibly in bed. Pulſe this morning 72; at preſent about 90, and very feeble. Takes very little food; is uncommonly emaciated, and very weak.

Hab. Vin. pur. rub. ad ℔iſs. in die, & cap. ℥iij. 2da quaq. hora. Rep^{r}. H. A. h. 1. c. g^{tt}. xl.

11.

Slept none laſt night. Pulſe 90, and regular, but eaſily quickened and fluttered. Reſpiration hitherto eaſy; debility increaſing; ſtill able to take drink, a little wine, or jelly.

R. Aq. Cin. ten. Aq. fort. aa. ℥iij. Tinct. Arom. Syr. Simp. aa. ℥j. M. Cap. ℥j. om. hor. App^{r}. Sinap. pedibus ſtatim. Rep^{r}. Merum ad ℔ij. in die.

Died at 10 p. m.

OBSERVATIONS.

ALL our remarks reſpecting this fatal caſe are ſuperſeded by thoſe we made on the former.

CATHARINE NEISH, *Æt.* 24.

March, 1. 1781.

Two or three times almoſt every day, for 12 months paſt, has had an hæmorrhagy from the noſe.

nofe. The blood difcharged daily amounts to about two ounces; though fome days fhe fays it has exceeded five or fix. For the fame length of time, the catamenia, which ufed to flow three or four days, have been prefent for little more than one, and difcharged in much fmaller quantity than before the epiftaxis commenced. Once or twice in a fortnight fhe is feized with fits, which are conftantly preceded by figns of numbnefs in her right hand. This numbnefs afcends up the arm gradually; and when it approaches her head, fhe becomes deprived of all fenfe. When fhe is in this ftate, which is only for two minutes, fhe is violently convulfed, and is obferved to difcharge an uncommon quantity of faliva. When fhe recovers, fhe has a great inclination to fleep. Thefe fits have continued to recur for upwards of thefe 10 years; one year previous to which fhe had an hemiplegia, which remained for about a month; and during fome time of its continuance fhe was blind, and for a fortnight deprived of the power of fpeech. A year ago fhe paffed fome worms. Appetite better at one time than another. P. 76. Belly regular.

2.

Catamenia fluunt hodie.

3.

Catam. fluunt.

Catam.

4.

Catam. cessarunt; epistax. contin. once to-day, and five times the day before yesterday. Aura yesterday returned to the shoulder, but not followed by a fit.

Mitt^{r}. Sang. e brach. ad ℥x. App^{r}. Emplast. Epispast. Nuch. & cap. Pil. Cærul. bis in die.

5.

Blood natural; two returns of the epistaxis, but less copious than formerly. No fit nor aura, nor any effect from the pills.

Cap. Pil. Cær. iij. in die.

6.

Some epistaxis again yesterday. Complains of pain of shoulder. Thinks the pills purge her a little. Pulse natural; no appearance of fits.

Cont^{r}. Med.

7.

Two returns of epistaxis at 8 last night, and 11 this forenoon. Complains of severe pain of left shoulder. Thinks the pills purge her twice a-day.

App^{r}. Emp. Vesic. parti dolent. Rep^{r}. Pil. iv. in die, & cap. Haust. Anod. cum g^{tt}. xxv. hor. som.

8.

Pain of the shoulder removed. No hæmorrhagy, nor aura, nor fit; 2 stools.

Cap.

Cap. Pil. Cær. ij. 3r in die.

9.

Had a fit a little after midnight, preceded by numbneſs in the arm. No epiſtaxis. Pills purge her 3 times a-day.

Omr. Pil. pro hac vice.

10.

Diarrhœa gone; no particular complaint.

Cap. bis in die Flor. Zin. gr. v.

11.

Some return of epiſtaxis laſt night; no other complaint.

Repr. Flor. Zinci ad gr. x. bis in die.

13.

Slight epiſtaxis laſt night. Threw up her powder to-day.

Induatr. Setacea Nuchæ.

Repr. Pulv.

14.

No bleeding at the noſe; no more ſickneſs.

Repr. Med.

15.

No complaint but headach, to which ſhe has been ſubject.

Contr. Med.

16.

Return of epiſtaxis laſt night. Let her have a dreſſer.

No

17.

No more epistaxis. Seton begins to run.

Rep^{r}. Flor. Zinc. bis in die.

18.

Return of numbness in the arm; but no fit or epistaxis.

Cont^{r}. Med.

19.

Return of epistaxis this morning; no other complaint.

Cont^{r}. Med.

20.

Small bleeding at the nose this morning.

Mitt^{r}. Sang. e brach. ad ℥viij. Rep^{r}. reliqua.

21.

Blood has a firm buffy coat; severe fit last night. No epistaxis.

Omitt^{r}. Flor. Zinc.

Cap. Pulv. Cort. Peruv. ʒj. ex Vin. mixt. ℥iv.

24.

Catam. fluunt; has taken no medicine.

26.

Pulse natural; no complaint but headach; bad taste in her mouth, and want of appetite.

Cap. vesp. Pulv. Ipec. gr. xv. p^{r} emet.

Omitt^{r}. Cortex hodie; rep^{r}. cras.

27.

Vomit operated well. Slight epistaxis; after it headach; bad taste of the mouth continues.

Cont^{r}. Med.

Head-

28.

Headach continues: no epiſtaxis, nor numbneſs of the arm; but a fit, as formerly, about one in the morning.

Contr. Med.

29.

No complaint but toothach.

Capt. ter in die P. Rad. Valer. Sylveſt. ℈i.

30.

Conſiderable epiſtaxis laſt night; no fit.

Repr. Med. ad ʒſs. ter in die.

April 1.

Severe headach yeſterday, which is not quite gone to-day. No fits nor epiſtaxis.

2.

Headach ceaſes, but not quite removed.

Contr. Med.

3.

Has had two fits, not like the former ones, as ſhe heard during the courſe of them, but could not ſpeak for a ball in her throat. Complains to-day of very ſevere headach.

Appr. C. C. temporibus, et educr. ſanguis ad ℥viij.

4.

Has had ſeveral more of the ſame fits, with a ball in her throat.

Omr. Pulv. Valer. Capt. bis in die Æth. Vit. ʒi. more ſolito.

5.

5.

Has had two hyſterical fits in the courſe of the night and this morning; and was threatened with another, which was ſtopped by the æther.

Contʳ. Med.

6.

Two hyſterical fits ſince yeſterday; headach ſtill very ſevere; headach moſt ſevere on the ſide not cupped.

OBSERVATIONS.

PHYSICIANS, in their judgment of morbid affection, are nowhere more erroneous than in their pathology of thoſe diſeaſes, accompanied with periodical diſcharge of blood, to which they give the name of *hæmorrhagiæ*. Reſpecting them, their fundamental hypotheſis, which influences all their reaſoning and all their practice, is, that the ſeveral diſeaſes of this denomination depend upon plethora, or a greater quantity of blood in the ſyſtem in general, and in ſome particular part, than is ſuited to produce the ſtate of health. They imagine the exorbitant portion is conſtantly tending to burſt the containing veſſels, and thereby diſcharge itſelf from the ſyſtem. That this is the tendency of an exceſſive quantity of blood, and the true ſtate of the fact with reſpect to the cauſe of hæmorrhagies, is agreed on all hands. But they have differed, and ſtill differ,

with

with reſpect to the manner in which this ſuppoſed phænomenon proceeds.

Some have thought hæmorrhagy, eſpecially the hæmorrhois or piles, and likewiſe bleeding from the noſe, ſalutary: And therefore, inſtead of ſuppreſſing ſuch evacuations, and removing the cauſe which conſtituted the diſpoſition to them, they have, on the contrary, often purpoſely endeavoured to produce them by artificial means; and when they occurred, either in that way or ſpontaneouſly, they thought it good practice to cheriſh them and keep them up.

The celebrated Dr Staahl was, in the laſt century and the beginning of the preſent, the profeſſed leader of a conſiderable ſect of this kind. He ſuppoſed plethora to be a very general cauſe of diſeaſe, and that the ſyſtem was conſtantly generating more blood than was compatible with its healthy ſtate; and that therefore the cure of ſuch morbid tendency, and of its conſequence, morbid ſtate, was to be effected, not by the ordinary means, according to the practice of others, of diminiſhing the quantity of blood by the ſeveral modes of bleeding, but by ſuch evacuations as ſpontaneouſly aroſe in the ſyſtem, or by a dexterous imitation of theſe. This operation in the ſyſtem he conſidered not as fortuitous, or proceeding from faulty treatment of it; but as the effect of an intelligent power preſiding over the

the fyftem, perceiving morbid bias or ftate, and poffeffing the power of exciting motions to remove or relieve thefe. It will eafily be perceived, that phyficians, who, in confequence of their erroneous judgment of the nature of the animal œconomy, and of the operation of the powers acting upon it, would unavoidably run into a wrong practice for the cure of difeafes, muft have often been very fenfible of the impotency or hurtfulnefs of their practice; and if any body taught them, as Hippocrates had done long before, and as Staahl more profeffedly did then, that the fyftem, or conftitution, had a power of curing difeafes, they would naturally difburden themfelves of fuperfluous anxiety about a thing that they knew they had not power to amend, and transfer their whole dependence for the cure of difeafe to this fuppofed energy of the conftitution. This was accordingly the fact with Staahl and his followers. And it has been juftly obferved, that their practice was proportionally impotent or nugatory. But this plan of conduct did not diftinguifh the Staahlians alone. It has been followed by others, and for the reafon lately affigned, who did not profefs the Staahlian doctrine: and all that we have further to obferve upon it is, that it is as much better than the one more generally received at prefent, as a timid and deficient practice is preferable

ferable to a daring and miſchievous one. Such as it is, it has received its complete refutation only from the author of the new doctrine. And indeed it was only in conſequence of the diſcovery of a juſt and rational medical doctrine, that the errors, either of this or any other erroneous one, could be diſtinctly detected *.

While Staahlianiſm, as we have ſaid, has been greatly extended beyond the limits of the ſect who formerly profeſſed it, its fundamental hypotheſis, plethora, has been adopted by every ſect of dogmatiſts, however much they pretended to differ from it in other reſpects. Nay, empiriciſm itſelf has ever been deeply imbued with it. The truth is, it has univerſally paſſed as a fact; and it is foreign from the idiom of empiriciſm to pretend to reject facts. Let the reader recollect what was ſaid before of Paracelſus, that he would take facts from any perſon, nay, even from the devil. There are many practitioners in Britain at preſent of that way of thinking. But we cannot help obſerving, that it leads to a deviliſh practice. We have before given our reaſons for this aſſertion. And we now add, as a corollary from all that has preceded, and as ſtrictly conformable to all that is to follow in this work, That while the theories of phyſic of every kind, that have hitherto been fabricated, are completely falſe

* El. Med. xciv. to xcix.

falſe conceptions, the far greateſt number of its facts are equally contrary to truth.

The doctrine of plethora, among all sectaries, except the profeſſed Staahlians, has been doubted by nobody. The only difference of opinion concerning it reſpects the extent of the ſyſtem which it may occupy. The only conteſt about it is, Whether it be univerſal or partial *? But, without dwelling unneceſſarily upon the ſubject, we ſay, *à priori*, that both theſe ideas are falſe; and that for the following reaſons. That theſe may be laid before the reader with more clearneſs, we ſhall firſt ſtate the facts reſpecting this matter in the briefeſt manner.

In the firſt place, the matter from which the chyle, and conſequently the blood, is made, is the food taken into the ſtomach. The condiment, which we can join with it, is taken in too ſmall a quantity to contribute towards that effect, by affording matter for the formation of blood. And a very moderate quantity of water, whether taken by itſelf in the form of drink, or conjoined with other ſubſtances, or entering into the conſiſtence of our food, is ſufficient to furniſh all the water which enters as an ingredient in the mixture of our food †. When any thing below that is taken in, thirſt is excited; and the neceſſary quantity ſupplied by it; while every thing above

* Elem. Med. Brun. cccvi. † Brown's Lectures.

above paſſes along the veſſels in an unmixed ſtate; or that of a very looſe diffuſion, and readily makes its way by the ſeveral watery excretories. It is the food, therefore, almoſt only, which furniſhes the matter of blood *.

Next, we have to obſerve, that food is productive of this effect in proportion to its nutrient quality. The kind of food moſt highly productive of this effect is animal; particularly fleſh, and the ſeveral forms of diet prepared from it. But ſalted, indurated, and tainted fleſh, ſuch as is employed on long voyages from neceſſity, and voluntarily by other perſons under no ſuch circumſtances, is an exception from this obſervation. Next in nutrient quality is fiſh; with the exception of the ſalted, indurated, and tainted preparations of this kind of matter. It is needleſs to obſerve, that, in both the fleſhy and fiſhy forms of food, there is a ſcale of nutrient quality. To give the detail of theſe would lead us too far from our ſubject. It is ſufficient here to remark, that the young and ſucculent kind of both is proportionally more nutrient, and productive of a greater quantity of blood, than the older and drier.

While both theſe forms of food, prepared from the animal kingdom, eſpecially the former, may afford ſufficient quantity of blood, our next remark is, that the ſeveral eſculent matters of the vegetable kingdom, when uſed with too ſparing a quantity of

* El. Med. cxli.

of the other two, and eſpecially of the firſt, but more certainly when depended upon alone, afford too little blood *, and are not an aliment ſufficient for man. This ſubject has been illuſtrated before; therefore we need not enter any further into it, than to ſay, that while ſuch is the judgment to be formed of the deficient nutrient quality of vegetable matter in general, there is alſo a ſcale of the nutriment afforded by it.

The farinaceous matters ſtand next to the moſt weakly, nutrient, fiſhy matter, being ſtill weaker than it: below them ſtand the roots; and below the roots, greens and fruits. There may be a few exceptions from the ſeveral particulars of this detail; but it is of no conſequence to ſtop here to point them out. The ſcale is adjuſted in much more than its outlines in the exacteſt proportion ‡; and made out, not from random ſpeculation, but by a large induction of experience and obſervation ‖.

The blood, as formed from theſe different materials, is more or leſs abundant, in degrees proportional to their quantity and reſpective nutrient quality.

But the quantity and quality being both given, the proportion of blood generated in the ſyſtem will

* Elem. Med. Cod. M.

‡ See above on the gout. ‖ Brown's Lectures.

will vary according to the degrees of ſtimulus applied, as ariſing from them, acting by ſtimulant operation, and from all the other powers which operate upon the ſyſtem by ſtimulant effects. In a word, the quantity of blood formed in the ſyſtem will be in proportion to the quantity of matter from which it is ſupplied, and the degree of excitement induced upon the whole ſyſtem; either by it, as acting by diſtending and ſtimulating the veſſels; or by all the other powers acting by their direct ſtimulus upon the excitability over all, independent of the peculiar ſtimulus excited on the veſſels *. Accordingly, an Engliſhman will have more blood in general than a Scotſman, the latter than a Gentoo, and the Gentoos than the Bramins, who mortify themſelves, both in other reſpects, and by greater abſtinence than they. It will not be neceſſary to lead the reader into a further detail of this piece of doctrine, founded upon obſervation and experience, conſiſtent in its ſeveral parts, and conſonant with his own good judgment and reaſon. We hope he is now prepared for the concluſion we are to draw; which is, That the great quantity of blood in the ſyſtem of any animal, and therefore the human, muſt be always in proportion to the quantity and quality of matter from which it is formed, and the vigour

 of

* Elem. Med.

of the ſyſtem performing the converſion and aſ-ſimilation of that matter into its own nature. The firſt application from this concluſion is, That the greateſt quantity of blood muſt be generated in the moſt robuſt perſons: that there will be a due quantity, compatible with the moſt perfect health, when food and all the other ſtimulant powers have been applied in a due degree: when theſe have been applied in a higher degree, ſo as to form a bias to diſeaſes of exceſſive vigour, or actually to produce theſe diſeaſes, that the quantity of blood will be proportionally greater: that it will be leſs, and inſufficient for the ſupport of perfect health, when the ſeveral powers mentioned have been applied in an under proportion, and have thereby formed a prediſpoſition to diſeaſes of debility, or theſe diſeaſes themſelves; and that in this caſe, according to the degree of diminiſhed application of the ſtimulus of food and the other ſtimuli, general debility will ariſe over the ſyſtem, and a morbid deficiency of blood will occur in an exact proportion to that.

See how all this agrees with the doctrine of plethora. Phyſicians have never talked of plethora as ſubſiſting either in the prediſpoſition to phlogiſtic diſeaſes, or in theſe when actually formed. They have indeed, in their practice, bled largely in the latter caſe; but not with

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a view to diminiſh an exceſſive quantity of blood prevalent in the ſyſtem. The deſign was, according to one ſyſtem, to carry morbific matter out of the body *; according to another, to attenuate the inſpiſſated fluids †; according to a third, to remove a ſpaſm, by diminiſhing reaction, ſuppoſed to be the effect of ſuch ſpaſm ‡. The caſes in which they have ſuppoſed plethora to prevail, are the ſeveral Hæmorrhagiæ: which are either never phlogiſtic, or only ſuch for a very ſhort time after their commencement; and through all the reſt of their courſe diſeaſes of debility, and of a correſponding under-proportion of blood ‖. The diſcharge of blood taking place in theſe caſes, has been the principal circumſtance from which they have been led to attribute the effect to plethora. But I muſt here obſerve, that all the known facts are againſt that concluſion. The ſtrongeſt men, and therefore thoſe who have the largeſt proportion of blood, are not the ſubject of the piles. And who, that has eyes on the outſide, or ſenſe in the inſide of his pericranium, upon ſeeing the puny relaxed ſtate of women labouring under flooding, eſpecially long and ſevere, after all the blood that is loſt by the diſcharges, all that periſhes by artificial bleedings, and other evacuations employed by practitioners for the cure; and when to this he adds, that through

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* Elem. Med. Brunonis c. † Ibid. c?.

‡ Ibid. cix. to cxxix. ‖ Ibid. cclxxvii.

whole courſe of the diſeaſe, which is but too often, under the preſent management, both tedious, ſevere, and exhauſting, the woman takes little or no food, and has leſs power to convert what ſhe takes into a proper quantity of blood; who, I ſay, would heſitate one moment to pronounce, that this is a caſe of both evident and prodigious debility?

The ſame thing is to be ſaid of the bleeding from the noſe, ſo often an affection of relaxed and enfeebled old men, and of young ones debilitated by faſt growth and other circumſtances. In ſuch a ſtate of circumſtances, nothing can account for the ſuppoſition of plethora being the univerſal cauſe, but an equally univerſal ſuſpenſion or deſtruction of the exercise of the mental faculties among practitioners *. The idea of plethora, as the cauſe of the gout, has been amply refuted. And it can be equally fully diſproved in aſthma, in epilepſy, in palſy, in apoplexy itſelf where it is genuine and idiopathic, in hyſteria, in the indigeſtion of old men, in colic, and in every other caſe in which it has been ſuppoſed to occur †.

The laſt argument which we adduce againſt the doctrine of plethora, is the univerſal failure of the common cure in all the caſes we have mentioned, and the ſurpriſing ſucceſs of the new plan

* El. Med. and Brown's Lectures. † El. Med. See the Chapter on *Hæmorrhagiæ*.

plan nearly to the ſame extent. Dreadful have the reaſonings of phyſicians been upon every ſubject of their art. They have not only not been aſhamed to maintain, that different effects can arise from the ſame cauſe, but that different cauſes could produce the ſame effect. No language is ſo common with them as to ſay, that purging will cure purging, vomiting remove vomiting, bleeding prove the remedy of bleeding; and that all the means of debilitating that would kill a giant, make a proper plan of cure for a perſon expiring under debility.

We find every one of the obſervations we have made on the nature of hæmorrhagy, tranſgreſſed in the treatment of this caſe. Firſt of all, ℥x. of blood are taken from the arm. This is an example of curing bleeding by bleeding. Next the pil. cærul. are given with the effect of purging her. After that, a bliſter is applied to the pained part of her ſhoulder. The amount of the uſe of theſe articles is, that ſo many modes of evacuation were employed to remove a ſanguine one. To theſe are oppoſed 25 drops of laudanum. Now, though this is not the fourth part, as we have more than once obſerved, of the proper doſe, and the weakneſs of the ſyſtem and laxity of the veſſels muſt have been much increaſed by the evacuatory plan; mark the effect, however: "Pain in the ſhoulder is removed;

" moved; no hæmorrhagy, nor aura, nor fits; " two ſtools." Next, as if two ſtools had not been enough, we find the anodyne, which had done the only ſervice, omitted; and the pills, which had done the principal miſchief, alone relied upon. At laſt it ſeems to have been perceived that the purging produced by them was exceſſive, and they are therefore laid aſide. Conſider the effect of this: " Diarrhœa gone, no " particular complaint. Capiat bis in die, florum " zinci grana quinque." This powder is next day given in double the quantity: But the epiſtaxis returned, and the termination of its effect was a new ſymptom. She gets next a ſeton in her neck: For ſix days following there is ſome appearance of a ſlight relief. Here it is to be obſerved, that the operation of the zinc, if any at all, is a ſtimulant one. But, from the whole hiſtory of its effects in the caſes of debility, to which it has been applied, it appears, that theſe are too inconſiderable to juſtify any practitioner for depending much upon it. As its operation, however, is good in kind, though improper from its ſlightneſs in degree, we may here obſerve, that a practitioner who knew not this, did better in uſing it, as being a medicine of ſome tendency to do ſervice, than in inculcating directly deſtructive ones. He is, however, all in the dark; and, ſo unacquainted with the ope-

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ration of any of the means he employed, that he now recurs to the worſt of them all, and orders other ℥viij. of blood to be taken from the arm. The conſequence of which was, according to the next report, "a ſevere fit laſt night." This, however, gives him very little alarm; becauſe "the blood had a firm buffy coat." The catamenia now appear. Nothing therefore is done through the following night: But this day xv grains of ipecac. are ordered for a vomit; and the Peruvian bark, which had been ordered the day before, but not taken for the nonſenſical reaſon before aſſigned. To fill up the meaſure of evacuation, we have in this a new one ſuperadded to thoſe already mentioned: And it is repeated with a dram of Peruvian bark in ℥iv. of a mixture of wine. Here once more are remedies of the moſt oppoſite operation conjoined. In a diſeaſe depending upon weakneſs and relaxation, and increaſed by the weakening relaxing effect of all the other evacuant powers formerly mentioned, we have now one of the moſt weakening and relaxing of them all, full and repeated vomiting, conjoined with bark and wine. If the latter had been given in due quantity, as their effect is invigorating and ſtimulating, there would have been a curious ſtruggle betwixt pernicious and ſalutary powers, adminiſtered to operate upon the ſyſtem at one and

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the ſame time. And, as the belligerent powers were kept a conſiderable time upon the field, from their mutual equality the conflict muſt have been exquiſite, and at beſt a drawn battle, the reſult of their exhauſted powers. There is one practitioner only whom I have heard of who ſends his medical forces to the field with this equality of contending energy, the prince of quacks, Dr Graham. He bleeds enormouſly: But to the proportional debilitating effect of that, he oppoſes his ætherial, electrical, magnetical forces, &c. which are highly diffuſible ſtimuli; the effect of which is, to leave the patient where he was. But, to do juſtice to him, upon ſome occaſions it would appear from the temporary ſucceſs of his practice, that he ſometimes gives ſuperior advantage to the latter. This, however, is never the caſe with the regular practitioners. They have never been acquainted with diſeaſes of debility, and therefore with the remedies ſuited to remove that. Opium has been indeed uſed a conſiderable time; but, from their ignorance of its operation, they never could uſe it in a proper manner. They have been of late taught, that it is a ſtimulant; and, though they do not confeſs it, they probably begin to uſe it as ſuch: But they know not in what quantity to uſe it, or the caſes to which it is ſuited, as we have

repeatedly

repeatedly obſerved, and as has appeared in the preſent caſe.

The ſame obſervation applies to the uſe of bark and wine in the preſent caſe: They are preſcribed in ſuch an under proportion, that their ſalutary tendency muſt be more than defeated by the hurtful one of the vomiting oppoſed to them. As they are therefore continued for many days, the effect of their uſe muſt be an increaſe of the ſum of debility. During this a ſcruple of valerian is preſcribed, and eight ounces of blood taken. Laſt of all, vitriolic æther is preſcribed: which is again oppoſing an highly diffuſible ſtimulus to a very debilitating power. The diſeaſe, as appears from the four laſt reports, increaſed upon the whole; which is what any perſon, imbued with any proper knowledge of the animal œconomy, could have eaſily foreſeen. What became of this patient we know not, for we have no report of her diſmiſſion or death. We can ſay no more, therefore, but that we fear the fate of the poor woman. Let the reader obſerve, that her fits, before ſhe came into the hoſpital, returned but once or twice a fortnight; and compare that with the frequency and ſeverity of their return after her treatment there: and let him draw his own concluſion, and judge what may be the cauſe that hæmorrhagy and

many

many other diseases have been esteemed the *opprobria medicorum.*

BETTY MILLER, *Æt.* 21.

March 14.

ON the 10th instant, having been exposed to cold, she was that evening seized with a violent acute pain of her head, particularly affecting the fore-part above the eye-brows. Next day the headach continued, and she complained much of sickness: she got a vomit that evening, which relieved the nausea, but the headach still remained; and she was hot and feverish all that night. On the 12th she had returns of the sickness and vomiting; for which the emetic was again repeated, but with little alleviation of her complaints.

From the 12th she has been confined to bed, owing to the severe headach, which is excruciating in an erect posture. Pulse 66. Skin hot and dry; body and menses regular; eyes impatient of light.

Cap. Sol. Antim. ℈ss. om. ½ hor. ad vomit. usq. Incip. hor. 4ta. Fovr. crura per hor. 1. vesp. Cap. Jul. Salin. ℥j. 3a quaq. hora.

She has been frequently subject to headachs.

Pulse

15.

Pulse 66, and soft. Sleeps much; headach; tongue clean; appetite bad; body open; vomit operated well.

Rep^r. Jul. Salin.

16.

Headach still severe; sleep and appetite bad; body open; tongue clean; thirst considerable.

Admov^r. Cucurb. cruent. nuchæ, & educ. Sang. ad ℥viii. Rep^r. Jul. Salin.

17.

Pulse 90. Skin cool and soft; tongue clean; some delirium in the night; body bound.

Rep^r. Sol. Antim. ℥ß. om. hor. Incip. hor. 4ta. Rep^r. Jul. Salin.

18.

Pulse 72, full and soft. No effect whatever from the solution; tongue dry; appetite bad; little or no sleep; much stupor and delirium.

Abrad. Capill. q. s. et lavetur Cap. frigida è pannillo acet. Rep^r. Sol. ad ℥ß. om. ½ hor. ad vomit. usque. Incip^t. hor. 4ta. Fov^r. crura per hor. 1. vesp. Rep^r. Jul. Sal. Injic^t. Enema vesp. nisi prius, &c.

Hor. 6^a. Abrad^r. Capill. statim, et applic^r. Empl. Episp. cap.

19.

P. 96, and feeble. No effect whatever from the solution, of which she took ℥iiß. as directed;

rected; had a ſmall ſtool from the glyſter; grew faintiſh, and had a ſlight convulſion-fit on ſhaving the head; ſome threatening of ſtrangury this morning; tongue clean and moiſt; ſtupor and delirium as before.

R. Vin. rubri ℔j. Aq. font. ℥viij. M. Cap. ℥iv. 2da quaq. hor. Incip. ſtatim. Repr. Enem. veſp. Omitr. reliqua.

20.

Hor. 9th a. m. Pulſe 84, and ſtrong. Bad reſtleſs night, with much delirium; great thirſt; no effect from the glyſter. Remarkable ſquint and double viſion.

Inungr. crura & femora ſtatim. Ung. Mercur. & fricr. probe.

Hor. 12th. Pulſe 90. Great ſtupor; other ſymptoms as before.

Applicr. Cucurb. ſine ferro temporibus quam primum per ½ hor. Cap. ſtat. Pil. Mercur. ij. Repr. Ung. ad ʒij. veſp. Injicr. Enema purgans veſpere niſi prius alv. dejec.

21.

Pulſe 108, rather more diſtinct; but the ſtupor and delirium continue, as alſo the ſquint and double viſion; ſome epiſtaxis at preſent; no effect from the glyſter laſt night.

Repr. Pil. & Unguent. ad ʒij. veſp. Omr. Vin.

Vin. Admov^r. Cucurb. cruent. temp. & educ. Sang. ad ℥viij.

Two drams of ointment were rubbed in this morning.

22.

Pulſe 130 and upwards. Arteriotomy performed inſtead of cupping, and ℥x. of blood drawn, which is natural. Symptoms much relieved for ſome hours after the bleeding, but increaſed in the night, and have been worſe than ever to-day; ſquint and double viſion remain, and the viſion is indiſtinct; frequent catching at the bed-cloaths. Had two glyſters laſt night, the latter of which operated; pupils ſcarce contract at all on the approach of light; no ſenſible effect from the mercury.

Aperiat^r. iterum ſtat. arteria temporalis, & mitt^r. Sang. ad ℥xij. Rep^r. Pil. q. primum, & Ung. ad ʒij. veſp.

23.

Pulſe 102, ſoft and of good ſtrength. Ten ounces of blood taken yeſterday, on which ſhe grew faint; delirium immediately after, rather higher; but ſoon became quiet, and has continued in a ſtate of ſtupor ever ſince; eyes now ſhut, and ſhe is quite inſenſible; no urine ſince yeſterday evening; breath ſlightly affected with the mercury.

Rep^r. ſtat. Unguent. ʒij. & ʒij. iterum veſp.

Repr. Enema vesp. Introdr. catheter, nisi prius, &c. Applicr. Emp. Episp. capiti iterum statim.

24.

Pulse about 120. Great subsultus, rather more distinct; eyes now open; squint and double vision remain; no sensible contraction of the pupils; breath evidently affected; no effect from the glyster; one pound of urine drawn off by the catheter, but none since.

Applicr. Emp. Episp. amplum nuchæ. Repr. Unguent. ad ʒij. stat. Immittr. Catheter q. primum. Repr. Enem. vesp.

25.

Died at 11 a. m.

On opening the head, the vessels of the brain appeared more turgid than natural, though in the course of the disease ℥xxviii. of blood had been taken from the head, and three blisters applied. On cutting into the anterior ventricles, they were found filled with a limpid fluid, and the foramen in the septum lucidum was so distended as to admit a large quill: the third and fourth ventricles were also filled with a similar fluid; and on the plexus choroides a number of hydatids were observed, some of them about the size of a pea. The water contained in all the ventricles did not exceed ℥ij. No tumors were to be found in the brain and cerebellum, &c.

The

The pineal gland, glandula pituitaria, &c. were perfectly natural.

Observations.

This cafe is fuch a one as is commonly denominated *hydrocephalus*: But phyficians appear to be all in a wrong train with refpect to dropfy in general, and more efpecially in their judgment of hydrocephalus. There is an idiopathic affection which only merits that appellation. It confifts in debility of the whole fyftem, greater in the veffels in general than in other parts of the living folids; ftill greater in the terminations of the arteries called *exhalents*, and in the correfponding abforbent orifices of the lymphatic fyftem; but commonly greateft of all in a certain portion of thefe laft named veffels. Under the prevalence of debility occurring in thefe, as the atony of their mufcular fibres is exceffive, fo the relaxation of the fame mufcular fibres, confidered in regard to their ftate of denfity as fimple folids, is in proportion to the atony. But as the mufcular fibres encircle the veffels, the diameters of the latter are enlarged in proportion to their laxity: Hence the exhalents, without any force from behind, and even in proportion to the debility of the fyftem in general, and of the labouring part in particular, allow a larger proportion of their contained fluid, than is compatible

tible with health, to eſcape. Accordingly, a quantity of ſerous fluid is poured out upon the neighbouring cellular membrane, greater than could be taken up by the abſorbents even in their healthy ſtate. But, as the abſorbents are in the ſame ſtate of atony and relaxation as the exhalents, their function of abſorption is diminiſhed in proportion to the increaſe of exhalation. And betwixt the two faulty ſtates of theſe veſſels, an accumulation and effuſion take place. When the effuſion comes to be very conſiderable in one part, or to be general; as it is only a certain portion of ſerous fluid that can be ſeparated from the blood either by the natural or morbid outlets, conſequently from an exceſſive quantity of the effuſed fluid paſſing off by the exhalents, there is leſs left to be diſcharged by the natural outlets. Hence perſpiration and urine are conſtantly impaired in dropſy; a part of the cauſe of which, beſides the circumſtance juſt now mentioned, is the weakneſs of the whole ſyſtem, and more eſpecially of the renal and perſpiratory veſſels, by which the determination to them is not ſufficiently ſupported. While the effuſion remains moderate, ſo as that it can be removed by the remedies ſuited to remove the general debility, it may be conſidered ſtill as a ſymptom of the idiopathic affection. But, when theſe remedies have been applied, and have raiſed the

excite-

excitement in the general ſyſtem, to the due degree, and yet the effuſion is not diminiſhed, then it is, that this laſt muſt be conſidered as a ſymptom of the diſeaſe, now converted into a permanent local affection. In ſuch a caſe, the proper plan of cure is, with the idiopathic indication, to increaſe excitement, and thereby reſtore health to the whole ſyſtem; to divert the flow of ſerous fluid, from the cavity into which it is morbidly diſpoſed to flow, to a part of the ſyſtem where the effuſion will be quite ſafe; becauſe, after that has taken place, it can be carried altogether out of the ſyſtem. Emetics, purgatives, and diuretics, accordingly produce this effect. But the common practice of depending upon them alone for a radical cure, is a pernicious one; ſince, when carried to exceſs, which it muſt be to fulfill the purpoſe intended, it proves a moſt powerful means of debilitating the ſyſtem. While it procures temporary relief, upon the whole it increaſes the diſeaſe; and ſooner or later, commonly very ſoon, gives it a fatal termination. To avoid which, ſince, except the effuſion, all the ſymptoms depend upon the general cauſe of the idiopathic affection, the idiopathic indication ſuited to the cure of every diſeaſe depending upon that cauſe, which is in different proportions according to the different degrees of debility conſtituting the ſeveral caſes,

ought here alſo to be purſued. The remedies are, as we have ſaid upon former occaſions, firſt, the more diffuſible, and then the more durable ſtimuli; the detail and manner of applying which, it is not neceſſary here to repeat.

This is the proper idea of idiopathic dropſy. But with it phyſicians confound many caſes where a ſimilar effuſion occurs from very different ſources. They ſuppoſe the diſeaſe the ſame and to depend upon the ſame proximate cauſe; which is, either increaſed exhalation, or diminiſhed abſorption. Each of theſe is produced by a number of affections, the moſt of which are local. Theſe they do not conſider as primary and principal, and the effuſion as ſymptomatic of them; which is the only proper light in which they can be viewed. But they look upon them as ſo many remote cauſes, all producing the ſame proximate, and therefore the ſame diſeaſe. Of the arrangement of the cauſes of dropſy, in this point of view, there is a Table in this Univerſity *. In it dropſy, as conſiſting in increaſed exhalation, is ſuppoſed to be produced by reſiſtance

* The COLLECTION of Serous Fluid giving DROPSY is made,

I. By EFFUSION, depending upon

1 INCREASED EXHALATION, occaſioned by

A. Reſiſtance to the return of the blood in the veins

a. By obſtructions

aa. In the lungs

bb In the heart

cc In

fiftance to the return of the venous blood, by obftruction in the excretories, by increafed impetus of the blood in the arteries, by relaxation of the exhalents, and by increafe of the watery part of the blood. Refiftance to the return

cc. In the liver
b. By the pofture of the body
c. By a general plethora in the veins, from
aa. Obftructed menftrual flux
bb. Obftructed hæmorrhoidal flux
cc. Obftructed ferous evacuations
d. By obftruction of particular veins, by
aa. Polypous concretions in the veins
bb. Compreffion
α. By tumours in the coats of the veins
β. By tumours external to the veins
αα. Scirrhous
ββ. Steatomatous
γγ. Bulk of the uterus in pregnancy
δδ. Bulk of the water in afcites
B. Refiftance to the paffage of fluids by the excretories
C. The increafed impetus of the blood in the arteries
a. By external violence, as in ftrains and bruifes
b. By fever
D. By relaxation of exhalents
a. In palfy
b. In general atony, as in chlorofis and cachexy
E. By an increafe in the proportion of the watery parts of the blood
a. By the quantity taken in
b. By the watery parts of the blood, retained in confequence of interrupted excretions
c. By the groffer parts being drawn off
aa. Red globules and gluten by hæmorrhagies
bb. Gluten by ferous and purulent evacuations

d. By

return of the venous blood is produced by obstructions in different parts, by the situation of the body, by venous plethora, by obstruction in some of the veins. And the causes of these are so many local affections producing the effusion which takes place, excepting venous plethora, which is supposed to be the consequence of the suppression of the menses, and of serous evacuations. Plethora, however, is an ideal affection, as has been lately proved *. The true cause of the effusion taking place here, is the same which produces the suppression. It is debility: and, by referring it to plethora in the veins, a very pernicious indication of cure is insinuated; which is, to diminish the quantity of blood. And, in all the other cases, the resistance to the return of the blood is produced by local affections, almost always incurable; such as tumours of the scirrhous, steato-

d. By a defect in the assimilating powers
2. By the rupture of lymphatics
3. By the rupture of vesicles and sacs

II. By the retention and accumulation of fluids naturally poured out in consequence of DIMINISHED ABSORPTION from
1. The obstruction of veins in parts not provided with lymphatic absorbents
2. Obstruction of the lymphatic system
A. In the conglobate glands
B. In the course of the lymphatics
3. Palsy of the absorbents

* Brown's Lectures.

ſteatomatous, and other kinds of induration of the veſſels, of which the dropſy is only a ſymptom. It was of eſſential conſequence to diſtinguiſh betwixt idiopathic dropſy and this ſymptomatic effuſion; the cure of the former being that we have pointed out; whereas that of the latter is to remove the original local affection; which is not to be effected by the other means of cure, and generally not to be effected at all. In this ſet of ſuppoſed remote cauſes, there are two droll conceits. Pregnancy, which is a natural ſtate, and aſcites, which is a caſe of dropſy, are ſaid to be cauſes of dropſy, produced by the reſiſtance to the return of the venous blood. That dropſy may occur in pregnant women, is poſſible; but the rarity of its occurrence in that ſtate is a proof of its little tendency to that effect. It was altogether nugatory to take it into the enumeration. And effuſion, ariſing from the preſſure of effuſed fluid, is at beſt only a ſymptom of a ſymptom.

The next cauſe of increaſed exhalation is ſaid to be obſtruction taking place in the excretories. But, if the general ſyſtem be ſound, we know of nothing that can produce obſtruction in the excretories. And if ſuch occur, and depend upon a faulty ſtate of the general ſyſtem, the latter ſhould be ſpecified as the cauſe. In a word, this affection is both ideal and inapplicable to any

any purpofe. We have a very hopeful caufe of increafed exhalation, producing dropfy, in increafed impetus of the blood in the arteries. The examples of this are, External violence, as diftenfion or contufion; and, forfooth, fevers. But if external violence, operating by diftenfion or contufion, have taken place, the primary affection produced is a local organic one, and the effufion is only a fymptom of that. And the cure of the latter muft turn entirely upon the removal of the former. What connection, therefore, has this cafe with the idiopathic dropfy, which we formerly defcribed, more than the feveral local or fymptomatic affections, which operate by interrupting the return of the venous blood? With refpect to fever, fuppofed to produce hydropic effufion by increafed impetus of the blood in the arteries, I would wifh to know what cafes this table-maker refers to. It is often obferved, that an effufion takes place at the end of peripneumony, and produces fuffocation. But let us fee how this happens. The increafed excitement, which takes place over the whole fyftem in peripneumony, is more exquifite in the veffels of the lungs, and particularly near the inflamed part. This may go to ultimate excefs; and, by exhaufting the excitability, put an end to itfelf. The part, therefore, deprived of its excitement, comes to be in a ftate of indirect debility. And hence

hence the tone of the muſcular fibres of the veſſels, conſidered as living ſolids, is deſtroyed; and a proportional laxity of them, as ſimple ſolids, is induced. And as theſe fibres encircle the veſſels, and conſtitute their different diameters, in conſequence of their own difference of denſity, it is underſtood, in the preſent caſe, that the diameters of the veſſels are enlarged in proportion to the laxity of the fibres. Fluids were formerly in theſe veſſels; theſe, therefore, without any activity impelling, flow out: hence the effuſion. If, with the affection of the part we have deſcribed, the exceſſive excitement over the whole ſyſtem has produced a correſpondent ſtate of indirect debility over it; in that caſe, the very preciſe diatheſis, upon which idiopathic dropſy depends, is induced; and the morbid ſtate ariſing from ſuch diatheſis may be conſidered as a caſe of real dropſy. But is this the explanation that the tabuliſt would give of it? I apprehend, not. For, firſt, it is not the increaſe of exhalation only, but the diminution of abſorption, the diminution of perſpiration, the diminution of urine, the diminution of every watery excretion, and particularly that by the belly, which concur to form the cauſe of the diſeaſe. To which muſt be added the univerſal debility and diminution of excitement, which produced all theſe effects, and produced them, not in the labouring

part

part only, but over the whole fyftem. This is a view of the difeafe very different from that which is alluded to by our tabulift. Laftly, after pointing out the true ftate of the body, upon which the effufion here depends, would it be correct reafoning to fay, that the increafed impetus of blood in the arteries is any part of the general affection here defcribed?

The increafed impetus is itfelf only an effect of the exceffive excitement which produced the whole ftate of indirect debility. This cafe of effufion, therefore, in the lungs, does not depend upon peripneumony or any of its fymptoms; but is a new idiopathic difeafe, produced by the transmutation of the phlogiftic into the afthenic diathefis *. This cafe, then, is the only inftance of idiopathic dropfy that has yet occurred in our table; but, according to the notions of our author, there was no reafon to look upon it as fuch.

The next caufe of increafed exhalation is faid to be relaxation of the exhalents from palfy, or from univerfal atony, as in chlorofis and cachexia. This is very beautiful difcrimination. In this cafe, the difeafes mentioned are the primary ones, and the effufion is moft notorioufly a fymptom of them. Why then fhould any perfon have dreamed of this as being a cafe of dropfy, depending upon the caufe which produces it as a

difeafe?

* Brown's Lectures.

diſeaſe? It would be equally judicious to take the ſeveral ſymptoms of any idiopathic diſeaſe, and make them ſo many ſeparate diſeaſes. What end in pathology could ſuch a ſcheme of diſtinction anſwer, but that of infinite confuſion? What end in the practice, but fundamental miſtake?

Debility, when applied to muſcular fibres, always implies a ſtate of proportional atony and relaxation. Why, in this caſe, ſhould the atony altogether be overlooked, and relaxation only mentioned, as taking place in the exhalents? Does formal palſy, and, what is the ſame affection in its nature, only leſs in degree, that is, univerſal atony, whatever diſeaſes it produces, imply a ſtate of relaxation nowhere but in the exhalents? If that were the caſe, the only indication of cure would be to remove the relaxation of the exhalents. And here I would put three queſtions, and deſire any phyſician, who might differ from me in opinion, to anſwer them. The firſt is, Are there any remedies known to phyſicians, which have the power of removing relaxation without changing the ſtate of the general ſyſtem? Secondly, Do not the remedies which change the ſtate of the general ſyſtem in every caſe where relaxation of the exhalents occurs, remove, or tend to remove, the relaxation of the exhalents? Thirdly, If they fail in removing

ving it, I would ask, if they know any thing that would succeed? If these questions cannot be answered, so as to support the distinction here attempted, pray what is the use of such distinction? And if the distinction, besides being useless, leads to the most erroneous intention of practice, is its author not justly reprehensible, and the exposition of the truth equally meritorious? Relaxation of the exhalents is an effect in a part, flowing from the cause of palsy and other atonic affections; in other words, diseases of debility. And the effusion arising from it is an effect of an effect, a symptom of a symptom, proceeding from an universal cause. To remove the effusion, therefore, the relaxation must be removed: but the relaxation cannot be removed without removing the general cause; which is debility, depending upon diminution of excitement over the whole body.

Since, therefore, the effusion occurring here, originates from a cause inherent in the whole body, why restrain its cause to an effect of the general cause occurring in a small part, and cut it off from its true source, the general affection of the system? We have said upon former occasions, that there are only two general forms of disease, phlogistic and asthenic; the former depending upon increased, the latter upon diminished excitement: And we added, that all affections not local,

local, however numerous they have ſeemed to be, and however much the idea of their being ſo many different idiopathic diſeaſes has prevailed, are reducible to the one or other of theſe general forms; nay, that they are eſſentially the ſame, differing in nothing but in certain unimportant and ineſſential appearances. In a word, ſo exact is the identity of the eſſential ſtate, and of ſo little conſequence are the different appearances, that we contend, the latter never imply any real difference; that the eſſential ſtate in every caſe is always the one or other of the ſtates we have mentioned; and therefore, that there are only two actual individual diſeaſes. How repugnant to this idea are all the modes of pathology, of diagnoſtics, of noſology, and all the diſtinctions that have been ſo much laboured in the works of phyſicians? To apply this to the preſent caſe: Palſy, chloroſis, cachexia, dropſy, and every idiopathic affection depending upon debility, are only one diſeaſe, viz. aſthenia, depending upon debilitating powers, conſiſting in a ſtate of debility, and to be removed by ſtimulating or invigorating powers.

Effuſion, therefore, taking place in conſequence of the modifications of aſthenia juſt now mentioned, is nothing but an effect of the cauſe of the general aſthenia accompanied with theſe ineſſential appearances in the ſtate of a particular

part;

part: It was therefore nugatory and highly confounding, to attempt the diſtinction here made. The indication of cure is the ſame in dropſy, without the paralytic and atonic appearances, and with them. There is no variation but in degree; and the rule with reſpect to that is, to conſider the degree of aſthenia that has taken place, in order to accommodate a proportional degree of ſtimulant powers for the cure.

Exhalation, producing hydropic effuſion, is next ſaid to ariſe from an increaſed quantity of the watery part of the blood, in conſequence of too much water having been taken in, or too much retained in the ſyſtem, from the diminution of excretion, or from the abſtraction of the groſſer part, as of the red globules and gluten in hæmorrhagies, or from the gluten in conſequence of ſerous or purulent evacuations. The firſt of theſe ſuppoſed cauſes has never any ſhare in producing idiopathic dropſy. If the body be in a vigorous ſtate, no quantity of water will operate that effect. A certain quantity of water only unites with the other conſtituent parts of the blood; and whatever more is thrown into the ſyſtem, is thrown out again by the ſeveral ſalutary watery excretories, thoſe of perſpiration and urine. This is the fact when the body is in perfect vigour. Again, when the body is weakened by all the ſeveral debilitating powers, an exceſſive ingeſtion of water, in place

of

of more ſtimulant drink, may operate as one of thoſe debilitating powers. But in this caſe it operates, not by its quantity producing a watery abundance in the veſſels, but by its debilitating quality. And it may produce this effect of debilitating, without producing watery effuſion: Which is true in all the modifications of aſthenia, in which hydropical effuſion does not occur: And when this occurs, the abundance of watery fluidity may run to the exhalents, and increaſe the quantity of effuſion from them; but it may alſo run to the kidneys and perſpiratory veſſels, and increaſe theſe natural evacuations, with good, at leaſt not with hurtful, effect: As ſuch, with what reaſon I am not to determine, has water lately begun to be conſidered as a remedy of dropſy. While water, not by its abundance, but debilitating effect, may contribute to the enlargement of the effuſion in idiopathic dropſy; and is thereby to be underſtood not to increaſe the diſeaſe, which is a ſtate of debility, but to increaſe a ſymptom of the effuſion; little blame can be laid upon it as a cauſe of dropſy, and none as a ſole cauſe. At the ſame time, in the caſes of local effuſion, the local cauſes of theſe have been enumerated; and therefore in theſe it may increaſe the quantity of effuſion, but is by no means a primary or fundamental cauſe.

With respect to the second supposed cause of dropsy, the retention of watery effusion, from diminution of excretion; it is to be observed, that excretion may be diminished, or suppressed, from two opposite causes: phlogistic diathesis, obstructing the secretory or excretory orifices; or weakness of the heart and arteries, in consequence of universal weakness rendering these vessels unfit to transmit their contained fluids, or not propelling the fluids with sufficient force into them. In the former case, dropsy never takes place. In the latter, it either may or may not take place. And, in fact, of the greatest number of modifications of asthenia, though the same state of excretion occurs in them all in a certain part of the course of the disease, yet the same effect arises in none, unless in the single case of asthenia which is denominated *dropsy*.

If the retention, therefore, were a cause of dropsy, it would be always so; but since it proves so only in the case of dropsy, the state of the body proving the cause of which has been already explained, it is not, even in that case, the retention, but the proper cause, that produces the effect. And, in so far as the retention can be supposed to contribute to the effect, it only does so as an effect itself of the general cause. Here, therefore, our tabulist has fallen into the ordinary error of physicians, of mistaking the state of a part

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for the caufe of an idiopathic difeafe, the caufe of which confifts in a ftate of the whole fyftem. The fyftem as a whole they have never viewed, but always confidered it as regulated by a number of energies of different parts, without any connection among themfelves, or dependence upon an energy uniformly operating over all, and fupporting all the particular energies. This fuppofed caufe of dropfy is therefore equally erroneous, and inductive of confufion in the pathology and practice, as the laft mentioned.

It is unneceffary to fay any more on this table; as every reader will clearly fee, that it is hypothetical and erroneous in its matter, and ftrained and affected in its form and arrangement.

To return to the cafe, the fubject of which fuggefted the remarks which we have delivered on the table: After being fo full upon the form of difeafe called *afthenia*, we have only to add, that this difeafe, denominated by phyficians *hydrocephalus internus*, or a collection of water in the cavities at the bottom of the brain, is the fame however with every other cafe of afthenia, or idiopathic affection depending upon debility. It depends upon debility of the whole fyftem, prevalent in the exhalent and abforbent part of it, and affecting the exhalents and abforbents of the brain, whatever be the kind of veffels that perform the latter function, in a more exquifite

manner than any other. This is its cause; in which it differs in nothing from any other idiopathic affection depending on weakness, but in the insignificant circumstance of the local part of the affection. It was an idiopathic case, as can be proved by the sound appearance of the several parts of the brain upon dissection: in which no lesion of organization could be perceived, nor any local fault, excepting the effusion of a small quantity of water into the ventricles; which was an effect, not a cause, of the disease. Nay, it may have been the result of that relaxation of the extreme vessels, which universally occurs in the struggle of death from any cause whatever.

Hydrocephalus is one of the *opprobria medicorum;* there is no well-vouched instance of any successful cure of it. But, as we have said upon another occasion, it is a greater reproach to them than they are aware of. It is their method of cure that occasions the fatality of the disease. Repeated bleeding, vomiting, purging, clystering, evacuation by urine, and in some measure by the skin; in one word, opening and relaxing all the excretories, and weakening the activity of the absorbents everywhere, which is the undeniable effect of these means employed by them for the cure; is the universal practice for the cure of a disease, the cause of which is that

very

very ſtate of the veſſels which they create. It is not therefore wonderful, that dropſy in all its forms, and particularly in the preſent, ſhould baffle the art of practitioners. In the preſent caſe, except a little wine, which was of no uſe from the ſmallneſs of its quantity, and its effect being counteracted by the other articles, and which was alſo ſoon laid aſide, every thing administered to our patient had the pernicious tendency we have pointed out.

As the cauſe of the diſeaſe was the ſtate of the ſyſtem already mentioned, that is, a diminution of excitement over all, with predominance in a certain part *; the indication of cure ariſing from that was to increaſe the excitement over all, and therefore in the part more eſpecially affected. The patient's ſtrength was too far gone to admit of the durable and ſound excitement, which food and ſuitable exerciſe are calculated to give. In this caſe, recourſe ſhould have been had to the more diffuſible ſtimuli: And, as the debility was not ſo great as to require the uſe of the moſt powerful of theſe, ſuch as opium, volatile alkali, and æther are; the vinous and ſpirituous regimen ſhould have been employed to invigorate the whole ſyſtem, and the alimentary canal in particular. The conſequence of which would have been, that the depravation of appetite would

* Elem. Med. xxxvi. lxxxv.

have ceafed, the fymptoms in the inteftines would have difappeared, the whole canal would have received increafe of tone and vigour, and the fame falutary effect would have been diffufed over the whole fyftem. This is not reafoning *à priori;* repeated fuccefsful trials of this method of cure fufficiently vouch its propriety. A cafe given up by the ordinary practitioners, was radically cured in a fhort time by my good friend Dr Wainman*. And, a little before the time that I am writing this, another pupil of Dr Brown's, the ingenious Mr Hogan, performed a cure of univerfal dropfy upon an old failor near 80 years of age, in a veffel that was cruifing in the North Seas. This patient laboured under univerfal anafarca and afcitic dropfy. His legs were fo œdematous as to be fwelled to an enormous bulk. No evacuant of any kind was adminiftered to this patient. The cure was trufted to fpirituous regimen alone: And in lefs than three weeks time, the patient was conducted from the jaws of death to the moft entire and perfect health.

Every thing that we have faid on this cafe will apply to thofe of afcites and hydrothorax; which we are now going to lay before our reader.

RICHARD

* In the fame way he cured a dropfy of the tefticle of a child.

RICHARD THOMSON, *Æt.* 19.

March 3. 1781.

His abdomen is uniformly ſwelled, tenſe, and gives evident ſigns of fluctuation. He has no cough; neither is his breathing in any degree affected, nor is there any ſwelling of his inferior extremities, even at night. Pulſe 80, and full; but he has been ſitting near the fire: urine not diminiſhed in quantity, but ſometimes high coloured; appetite and belly natural; ſometimes, however, has pyroſis and colic complaints. The ſwelling of his belly is of a month's ſtanding; and was occaſioned by a long march in bad weather, his feet being conſtantly wet. About a week after the firſt appearance of the ſwelling, his belly was much more enlarged than at preſent, and his legs were then conſiderably ſwelled. He had alſo at that time ſome pain in the right hypochondrium. The pain in the region of the liver, and the ſwellings of his legs, diſappeared; and the ſize of his belly was diminiſhed by the frequent repetition of cathartics. At preſent no pain is felt, nor can any hardneſs be perceived in the region of the liver. About a week before he ſet out upon his march he had the itch, for which he anointed himſelf with ſulphur ointment.

4.

Inungr. Abdomen. m. et v: Ol. Cicut. Cap. Pil. Merc. gr. x. om. noct. et gr. v. om. m.

Let him have a bit of meat for dinner, and an egg for supper.

5.

Rep^r. Pil. et hab. Liq. Punch ℥xij. quotidie. Urine 40 ounces.

6.

Urine only 28 ounces; no change of symptoms.

Rep^r. Med. 2da quaq. hora ad 4^tam usq. vicem. Syr. Colchici ℥ss. Incip. cras prim. mane.

7.

Urine 20 ounces; has had but 3½ ounces of his medicine.

Rep^r. Pil. ad gr. xv. in die, et Syr. Colch. ad ℥j. ad 4^tam vicem, 2da quaq. hor. ut ant.

8.

Urine 28 ounces; pulse natural; sleeps well; no sensible effect from any of the medicines.

Rep^r. Syr. Colch. ad ℥j. ad sext. vicem. Incip. cras mane.

9.

Three stools from the syrup to-day; 36 ounces of urine, besides what was lost when he went to stool.

Omitt^r. Syr. Colch.

R. Rad. Scill. recent. ʒss. infund. in Vin. rub. ℥xij.

℥xij. per horas 6. tum cola., Cap. ℥ſs. omn. hora ad 4^tam^ vicem. Incip^t^. cras prim. mane.

10.

Medicine purged him three times yeſterday: only 20 ounces of water meaſured; but the greateſt part could not be meaſured, owing to the purging.

Om^r^. Vin. Rep^r^. Ol. Cicut.

11.

Eight or nine ſtools yeſterday; one ſtool to-day; urine about 60 ounces.

R. Rad. Scill. recent. ʒij. infund. in Vin. Rub. ℥xij. per hor. 8. prius in fruſta minuta ſeca, cola; et cap^t^. ℥ſs. 2da quaque hora ad 4^tam^ vicem, niſi Catharſis ſuperv^t^. Incip^t^. prim. mane.

12.

Urine about 80 ounces; vin. ſcill. of the original ſtrength, the ſtronger not being ready; breathing not affected.

Capt. ſtatim Vin. Scill. ℥j. poſt. hor. 11. repet. Cont^r^. Pill.

13.

Urine 96 ounces; abdomen much ſlacker, and leſs; no viſible effect from the wine of to-day.

Cont^r^. Med.

14.

Belly very much fallen; urine eight pounds.

Cont^r^. Med. Om^r^. Pil.

15.

15.

Urine ſince yeſterday only four pounds; belly conſiderably leſs.

Rep^r. Pil. ad gr. x. veſp. gr. v. mane, et Vin. Scill. ad ℥j. 2da quaque hora ad tertiam vicem.

16.

Urine ſix pounds; belly continues to diminiſh; two thin ſtools laſt night; was a little ſick on taking an ounce of his medicine.

Om^r. Gin-punch. Hab^t. Vin. Rub. ℥x. in die. Rep^r. Pil. et Vin. Scill.

17.

Urine five pounds; mouth not affected; threw up the laſt doſe of his medicine yeſterday; has not been ſick to-day; pain of his back ſtill ſevere towards night.

App^r. Emplaſt. roborans lumbis prope part. dolent. Rep^r. Med.

18.

Urine as yeſterday; appearance of the abdomen quite natural; pain of his back very ſevere, ſo that he can neither walk or ſit up.

Om^r. Pil. et Vin. Scill. Hab^t. Vin. Rub. ad ℥x. in die.

19.

Pain of his back ſtill ſevere; ſwelling of the abdomen ſtill gone; urine four pounds; has been

been coſtive theſe two days, and has ſome gripes; breath never affected by the medicines.

R. Sal. Glaub. ℥ij Cryſt. Tart. ℥ſs.; ſolv[r]. ex Aq. font. ℥xviij. et adde Aq. Cin. ten. ℥ij. Cap[t]. ℥v. om. hor. donec alv. dejec. Incip[t]. ſtatim. Inj[r]. Enem. com. ſtatim.

20.

Belly quite ſleek; urine not meaſured; Glyſter and ſalts operated well; back rather eaſier.

Cap[t]. Pulv. Cort. Peruv. ℈ij. 3 in die ex Vin.

21.

Pain of his back removed, but he complains of ſome pain of his left ſide; ſlept well; urine 24 ounces; belly natural; belly completely fallen.

Cont[r]. Med.

22.

Free from complaint, except ſlight pain of his ſide; urine not meaſured.

23.

Free from complaint; urine ſix pounds.

24.

Urine about ſix pounds; no complaint, but ſlight pain of the back, and that not conſtant.

Rep[r]. Cortex ad ʒj, quatuor in die, et Vin. ut ant.

25.

Urine five pounds; no complaint, but ſlight pain of the back.

Cont[r]. Med.

26.

Urine five pounds. Conval^{e}.

30.

Urine above five pounds; ſome fulneſs about the region of the ſtomach; good appetite, and belly natural; epiſtaxis ſometimes, which he was formerly ſubject to.

Om^{r}. Cortex et Vin. Cont^{r}. former diet.

April 3.

Has had ſevere gripes, and great diarrhœa, ſince laſt report; complains of drineſs in his throat.

Bibat. Potionis Cretac. ℥iv. 4ta quaque hora. Incip^{t}. ſtatim. Hab^{t}. Hauſt. Anod. c. g^{tt}. xxv. hor. ſom. Capt cras mane Sal. Glaub. ℥iſs. Cryſt. Tart. ℥ſs. ex Aq. bull. ℔j.

4.

Gripes and diarrhœa continued till this morning; gripes now gone; diarrhœa continues, ſeemingly from the phyſic; complains of thirſt; but he ſlept well. Pulſe 108; which it was yeſterday.

Rep^{t}. Hauſt. Anod.

5.

Diarrhœa gone; pulſe natural; abdomen ſwelled; fluctuation perceivable; urine five pounds.

6.

6.

Pulſe about 90; he has been lately at the fire: urine about four pounds, though he drinks leſs than formerly: frequent epiſtaxis.

Rep^r^. Vin. Scill. u. a. præſcrip. ad ℥ſs. om. hor. ad 5^tam^ vicem. Incip^r^. ſtatim.

7.

Pulſe natural; urine $2\frac{1}{2}$ pounds; but he drinks little, having no thirſt; belly natural; he ſlept ill theſe two nights.

Rep^r^. Vin. Scill. ad ʒj. om. hor. ad 4^tam^ vicem, niſi prius nauſea ſuperv. Om^r^. H. A.

8.

Urine three pounds; no ſickneſs from the wine to-day; no change in the abdomen; pulſe 72, and ſtrong; he ſlept well.

Rep^r^. Pil. Mercur. ad gr. x. mane et veſpere.

Rep^r^. Vin. Scill. cras ad ℥j. ad 5^tam^ vicem.

9.

Juſt as yeſterday.

Cont^r^. Med.

10.

Was made a little ſick by his medicine yeſterday, and was purged towards evening; pulſe natural; urine four pounds; belly rather ſlacker.

Rep^r^. Vin. Scill. et Pil. veſp. Om^r^. Pil. mane.

11.

Urine $4\frac{1}{2}$ pounds; no other change.

Cont^r^. Med.

12.

12.

Urine four pounds.

Rep^r. Med.

13.

Urine as formerly; no ſenſible change on the abdomen; complains of great ſickneſs, vertigo, headach, thirſt, want of appetite and ſleep; conſiderable diarrhœa laſt night; tongue dry, but not foul; ſkin dry and hot.

Capt. hor. 4ta P. Ipec. gr. xv. pro emet. et hab^t. Infuſ. Cham. mor. ſolit. Capt. 2da q. hor. P. C. P. ℈ij. ex Vin. mixt. Incip^t. poſt Vomit. Hab^t. Vin. Rub. ℔j. c. Aq. font. ℔ſs. in die. Fov^r. crura per hor. 1. veſp.

14.

Pulſe 138. Took one doſe of the ipec. at four, and another at ſix; but threw up none till eight, and little then except what he immediately had taken down; was very much purged by his medicine; ſlept pretty well in the night, and had a ſlight moiſture on his ſkin; ſoon after taking a doſe of bark this morning, was ſeized with vomiting; threw up about three pounds, chiefly blood, and much of it very florid; headach continues; tongue foul, but moiſt; ſlight diarrhœa; little appetite.

Rep^r. Cortex ex Lact. Ebuſyr.

R. Spir. Vit. ten. Syr. ſimp. aa ℥ſs. Aq. Roſar. ℥iij. M. Capt. coch. parv. 4^r in die, ex Aq.

Vit-

Vit. vel Vin. ℥iij. Repr. Vin. mixt. ad ℔j.

15.

About 4 P. M. yeſterday, became torpid and comatoſe, and never after ſpoke any; about four this morning, he had an involuntary diſcharge by ſtool, by which many pounds of blood were paſſed, ſome of it florid, ſome of it grumous and coagulated. A few minutes after, he died.

BETTY JACKSON, *Æt.* 26.

March 5. 1781.

Her legs and thighs are very conſiderably ſwelled, and leave the print of the finger on being preſſed. The abdomen is very little ſwelled, nor can any fluctuation be perceived; about the region of the ſtomach there is ſome degree of fulneſs. She has, beſides, much cough, and great dyſpnœa, which obliges her to ſleep with her head very much raiſed. Her ſleep is diſturbed, and ſhe frequently awakes with a ſtart. The ſwelling of the inferior extremities has continued for ſeven weeks: the cough is near of as many months ſtanding; and, at its firſt commencement, was accompanied by conſiderable hæmoptoë. The cough and dyſpnœa have, however, been much aggravated within theſe eleven days,

days, when ſhe was delivered of a child at the full time. Four days after her delivery in this hoſpital, ſhe was ſeized with pains all over the abdomen, and ſhooting to her back. Theſe pains ſtill continue; and were preceded by a fit of ſhivering, ſucceeded by heat and ſweating. The lochia ſtill flow; but are in very ſmall quantity, and ſerous; in which condition they have been ſince the time of delivery. Milk in very ſmall quantity; urine ſcanty, and high-coloured; belly looſe, occaſioned by the phyſic ſhe got yeſterday. She has had, for ſome time previous to delivery, at times, ſome tumour at the umbilicus. It has perfectly diſappeared at preſent; but ſhe ſays it is excited by ſevere coughing.

Inung^r^. crura, femora, et abd. m. et v. Ol. Cicut.

R. Pulv. Cryſt. Tart. ʒj. f^t^. hujus modi doſ. x. cap. iij. in die; Gin-punch ℥xij. in die.

A bit of meat for dinner, and an egg for ſupper.

6.

Pulſe 96. Slept ill, but cannot lie down; complained of ſevere pains in the abdomen, and ſome ſickneſs through the night, and to-day, ſince ſhe took the medicines.

Cap. ſtatim iij. doſ. Cryſt. Tart. et ij. iterum poſt hor. 3. niſi prius alvus dejec.

Inj^r^. Enem. com. veſp. niſi prius, &c.

17.

7.

Three doſes were taken immediately, which operated in two hours. Two doſes at 5, which operated at 7 p. m. Pulſe 84. Skin cool; appetite bad.

R. Cryſt. Tart. ℥ij. Pulp. Prun. Gallic. ℥j. Syr. q. ſ. ut f[r]. Elect. cujus cap[t]. coch. parv. 2[da] quaque hora, donec alv. dejec. Incip[t]. cras mane.

8.

Pulſe 96. Electuary has operated three times; ſtools and urine paſſed inſenſibly; great ſtupor and delirium; ſwelling of the legs much diminiſhed.

Appl[r]. ſtatim C. C. temporibus, et educat. Sang. ℥viij. Abrad[r]. Capill. quam primum hora 6[ta] p. m.

No relief from the cupping and ſhaving; ſtupor and delirium continue; three looſe ſtools (from the electuary) ſince one o'clock, all paſſed inſenſibly in bed; pulſe 100, not very weak, but with great and frequent intermiſſion; breathing ſomewhat laborious, and expectoration difficult and neglected.

Appl[r]. ſtatim Emp. Epiſpaſt. ampl. univerſo capiti et ſinapiſmi pedibus.

9.

Pulſe this morning 84, at preſent 120; ſomewhat more diſtinct, but ſtools and urine voided

 inſenſibly;

insensibly; redness on the part where she lies; diarrhœa continued through the night.

Repr. Cryst. Tart. ad ʒj. 4r in die. Omittr Gin-punch.

R. Vin. Rub. ℥x. Aq. font. ℥vj. Pulv. Cort. Peruv. ʒvj. Capt. ℥iij. 2da quaque hora. Repr. Sinapis. vespere.

10.

Speaks sensibly, but voids her urine and fæces insensibly in bed; swelling of the limbs much diminished; tongue clean; skin cool; pulse intermits every fifth stroke, about 80 in a minute.

Contr. Med.

11.

Died at 7 A. M.

Appearances on Dissection.

On opening the head, a morbid adhesion, of a very small extent, was found, of the dura mater to the os occipitis. It seemed to have been of long continuance; the vessels of that part being more numerous, and the membrane thickened somewhat. Below the dura mater, a small quantity of fluid was contained. The brain was perfectly sound; nor did the ventricles contain more than their natural quantity of fluids. All the viscera of the thorax were sound; but the pericardium contained eight ounces of water. In the abdomen two pounds of water

were

were found. The viſcera were all in their natural ſtate; except the uterus, which ſtill was much enlarged, and its inner ſurface a little inflamed; particularly about the os tincæ, where there appeared ſome effuſion into the ſubſtance of the uterus. Within the uterus a conſiderable quantity of blood was contained. The external coat of the uterus was in no degree affected; neither were the peritoneum, or omentum and guts.

General Observations.

We have contented ourſelves with pointing out only a few caſes of the unſucceſsful and hurtful practice of phyſicians who follow the generally received plan, and with making ſuch obſervations as aroſe from the circumſtances of theſe caſes very minutely deſcribed. Let theſe, therefore, ſerve as ſo many examples in fact of the impropriety of the practice, which is propoſed to be exploded by the new doctrine. To have given as many as might have been collected, with correſponding obſervations on each, would have ſwollen this work to folios without end. We have at the ſame time been careful to do all manner of juſtice to the practice which we have arraigned, by ſingling out the gentleman who is confeſſed to be the beſt of the ordinary practitioners whoſe practice we have had acceſs to*. If the reader, however, ſhould be deſirous of further

 illuſtration

* Dr Gregory.

illustration of this subject, by examining more instances of the common practice, we refer him to the registers of the Infirmary at large; and, besides these, to a practical work lately published, intitled, *Clinical Experiments*; by comparing which with the practice introduced by the new doctrine, he will have an opportunity to exercise his judgment and discernment of the truth.

We formerly gave a full description of the gout; and shewed it to be a disease depending upon debility, and to be cured by stimulating and invigorating powers. We asserted, that asthma was precisely of the same nature, from its arising from the same cause, and being cured by the same precise management. The same observation was applied to epilepsy, palsy, the greatest number of the cases denominated *apoplexy*, and to hysteria. It will also appear, from the view of local diarrhœa narrated above *, and the observations made on it †; from idiopathic diarrhœa ‡, and the observations following it ||, and others on its cure §, that a case of disease, consisting of symptoms of indigestion, and particularly vomiting, sometimes with purging, sometimes without it, and sometimes with a costive belly, denominated *dyspepsia*, or *stomach-colic*, *diarrhœa*, or *looseness*, and *colic*; it will appear, I say,

* See page 188. † Page 192. ‡ Page 212.
|| Page 214. § Page 217.

ſay, that this caſe, ſo varied in its external appearance, is preciſely of the ſame nature with thoſe we have formerly deſcribed; and that they are all but one and the ſame general form of diſeaſe, the diſeaſe which we have denominated *aſthenia*. Of the laſt-mentioned caſe we ſhall ſoon give an example or two in fuller illuſtration of the idea juſt now delivered.

But there are many other caſes, ſuppoſed widely different from each other, and from the general form to which we refer them all, as conſtituting one and the ſame identical diſeaſe, differing only in the external appearance of ſome of the ſymptoms, which never amounts to any real difference, and in the degree of debility occurring in the ſeveral caſes; moſt of theſe ſtill remain to be taken notice of. Two of them, the inflammation appearing in the gout, and the inflammation, real or ſuppoſed, occurring in the courſe, and particularly towards the end, of typhus, have already been explained; and proved to be affections preciſely of the ſame kind as the other ſymptoms, which are all ſymptoms of evident debility: they are therefore to be underſtood to belong to the caſes of debility, which we have referred to general aſthenia. And we expect, that enough has been ſaid to incline the reader, contrary to the common opinion, to think they ſhould be diſpoſed in that manner.

Of those which we are now to add, intermittents have been mentioned as belonging to the same head of disease. But the hot fit, which is a distinguishing part in their course, has never been looked upon as depending upon debility. Its resemblance to the state of the body taking place in that phlogistic form of disease, has been the circumstance which chiefly misled physicians. They have at no time possessed so much philosophical turn, as to have been in any condition to discern false appearances from real states. On the contrary, their propensity to mark so many real differences of morbid state, as their histories furnished of apparent ones, has been the chief cause of the immense volumes of diagnostics, and, of late, of all the nosological distinctions, which have distorted the pathology, and perverted the practice of physic: A glaring example of which we have in the present case. But we assert, that the hot fit of intermittents is the same in kind with the cold one; differing only in this, that the debility, which is their common cause, undergoes some diminution in the hot fit, while at the same time it is still debility. The proof of this is incontrovertible. A state of debility constitutes the cold fit, which we are warranted to conclude from the whole concourse of symptoms, as well as from the known debilitating effect of the several exciting powers; the consi-

deration

deration of which, as our book is ſwelling in our hands, we muſt diſpenſe with here, referring our reader to the new doctrine in which this fact is proved *. Another argument for the hot fit depending upon debility is, its being preceded by the cold one; for, if the cold fit, as has been proved, depends upon debility, it is inconſiſtent with the nature of things that its effect will be increaſed action or exceſſive vigour, a ſtate diametrically oppoſite to that which the cauſe is ſuited to produce. Phyſicians have had recourſe here to their paradoxical notion, that the living ſyſtem has a power, when the ordinary cauſe of excitement is diminiſhed, to increaſe it, and produce it in a higher degree than the ordinary cauſe can do from its own internal energy. This idea has been ſufficiently refuted †. It is a piece of Staahlianiſm ſet aſide with the refutation of that doctrine ‡. Since, therefore, it is an imaginary property of the living ſyſtem, it cannot be admitted in explanation of any real phænomenon, and is conſequently inadequate to the explanation of the hot fit of intermittents. In the next place, if the hot fit of intermittents conſiſted in exceſſive action or vigour, it would be the ſame ſtate with that which conſtitutes the phlogiſtic form of diſeaſe, and would be remediable by the

* Brown's Lect. El. Med. vi. xii. † El. Med. cxiv. to xcix.
‡ Elem. Med. Brun. and Brown's Lectures.

the ſame means of cure; that is to ſay, a peripneumony, or the phlogiſtic diſeaſe accompanied with inflammation of the lungs, and the hot fit of intermittents, would yield to the ſame plan of cure.

But, I would aſk any phyſician if that be the truth? Are bleeding, purging, abſtinence from meat and drink, and the uſe of every debilitating evacuatory power, which are the remedies ſuited to remove peripneumony, alſo proper to carry off the hot fit of intermittents? Nobody will ſay ſo. On the contrary, ſuch a plan of cure would be found completely deſtructive, eſpecially in the pureſt ſtate of the diſeaſe as it occurs in warm countries. Nay, it is generally agreed among phyſicians, that, and only ſometimes, with the exception of ſpring intermittents in a cold country, bleeding, which is the moſt powerful remedy to remove peripneumony *, is highly detrimental in intermittent fevers. The laſt argument we ſhall bring, is the effect of the remedies which have been found ſucceſsful in the cure of this modification of diſeaſe. Theſe are of late, the Peruvian bark; and in former times, the ſeveral diffuſible ſtimuli, as wine, &c. which operate by increaſing excitement. Our concluſion from the two laſt arguments, therefore, is, That, ſince debilitating powers are hurtful, and ſtimu- lant

* El. Med. Brun. cclxxii. to cclxxvii.

lant ones effectual remedies againſt the hot fit of intermittents, they cannot depend upon increaſed, and conſequently muſt ariſe from diminiſhed, excitement; and from the ſame, as well as all the other arguments, the concluſion is irreſiſtible, that the hot fit of intermittents is not different in kind from the other parts of the diſeaſe, but preciſely the ſame with them, differing only in degree. If bleeding is hurtful, and the diffuſible ſtimuli, when given in the time of the hot fit, as effectual as when they are given in the cold, which is an undeniable fact, there is no getting rid of the concluſion we have drawn. The hot fit, therefore, of intermittents, muſt now be underſtood as making nothing againſt the fundamental principle of the new doctrine.

Inflammatory congeſtions either ariſe, or are ſuppoſed to ariſe, in the courſe of intermittent fevers. Theſe, by the Staahlians, were imputed to the uſe of the bark; by Boerhaave, to the premature uſe of it: And they both, as well as all their followers, and every writer or teacher, with whoſe doctrines we have any acquaintance, have all agreed that this affection is of an active phlogiſtic nature. But that opinion is ſufficiently elided by a long train of facts which have ſince been detected. The ſimple ſtate of which is, that it was not the bark which produced abdominal congeſtions, whether ſuppoſed or real; but the

the caufe of the difeafe, fuffered to go on, or increafed, by the means employed for the cure of it. For the refult of univerfal experience now, with refpect to the ufe of the bark, is, that the more early it is adminiftered, the more fuccefsful is its operation in removing the difeafe, and in preventing the occurrence of this as well as every other morbid affection. And we have further to add, that if ever the bark fails, which I have heard frequently happens, it is not from any tendency of its action to be hurtful, but from the infufficiency of that action. It is a much weaker ftimulus than the diffufible ones, of which we have now made fuch frequent mention. Whenever, therefore, the caufe of the difeafe rifes to the height of producing fuch a violent ftate of it as occurs in the malignant intermittents and remittents of warm countries, in that cafe it is very injudicious, and incompatible with all the principles of our new doctrine, to truft the cure to it alone. As the debility in this is nearly the greateft that occurs in any cafe, the power of the remedies fhould be accommodated to that, and therefore the moft diffufible ftimuli employed, fuch as opium, &c. And after the fyftem has, from the ufe of thefe, received a confiderable increafe of excitement, and is now raifed to the ftate of this, in which the ordinary milder cafes

of intermittent fever consists, then it is that recourse may be had to the bark, and other less diffusible, but more permanent, stimuli. Of this also we have proof from actual cures of obstinate intermittents performed upon this principle; of which I shall give a striking example. Two children, who lost both their parents in Lincolnshire Fens, were thence carried to Edinburgh, to be brought up and taken care of by a relation there: They had had the endemic fever of the first mentioned place hanging about them for many months, and were completely cured in a few days by the use of the diffusible stimuli.

From this and other instances that could be adduced, from the success of a near approach to intoxication employed by the country people, from the success of the practice of Riverius * by similar means, before the bark was discovered, and from the large analogy of the certain efficacy of this method of cure in all other cases of similar debility; we hesitate not to conclude, that the affection in the abdomen, whether taken, or mistaken, for congestion, though it may be inflammatory, is precisely the same in kind with the other symptoms, arises from the same debilitating powers, consists in the same state of debility, and is to be removed by the same stimulant remedies †. But we have proved above, that

* Brown's Lectures, and Cullen's. † Brown's Lect.

that all the other ſymptoms, not even excepting the ſtate which conſtitutes the hot fit, are ſymptoms of debility. And the proof, which we have adduced of the inflammation of the gout, and of the ſuppoſed or real one occurring in the end of typhus, and of the hot fit in the febrile caſe we ſpeak of, being aſthenic ſymptoms, as well as all the reſt conſtituting the reſpective caſes, furniſhes another analogy, that adds irreſiſtible force to the concluſion we have drawn. From which our corollary is, That the abdominal congeſtions in intermittents, which have made ſuch a noiſe in the books and the ſchools of phyſic, are either, like many others, an imaginary affection, or, if real, an inflammatory aſthenic one. Conſequently, inſtead of affording an argument againſt the fundamental propoſition of the new doctrine, it gives a very powerful ſupport to it.

The appearance of the throat *, called from thence *gangrenous ſore throat* †; and the ſimilarity of painful feeling and inflammatory aſpect in ſeveral larger joints, in the paſſive or chronic rheumatiſm, to ſymptoms ſimilar in their appearance, but radically different in their nature, in active or acute; have proved another ſtumbling-block to phyſicians, by which they have been precipitated into an abyſs of error, both in the patho-

* See above, page 131.

pathology and practice; and from which their ignorance of the truth misled them into the belief, that these appearances afforded an insuperable objection to the fundamental principle of the new doctrine. But here again, as usual, they are all bewildered in the mazes of their own delusive conceit. The inflammation of the throat in the former case, and of the larger joints, or the parts in the neighbourhood of these, is as different from the corresponding inflammatory affection in the inflammatory sore throat and acute rheumatism, as any morbid affection can be from any other. In the present cases, it originates from the same exciting powers, consists in the same state of excitement, and is to be removed by the same degree of stimulus in the remedies, as all the other symptoms. In a word, the cause is debility; and the indication of cure is stimulant operation; which is the converse of the cases to which these are opposed. These last mentioned affections, therefore, are to be added to those which we have mentioned before, as so many corroborations of the new doctrine, and by no means raising any objection against it. Physicians, misled by their idea of the local part of the general affections we here speak of, have universally followed a plan of cure diametrically opposite to the one just now hinted. But their universal want of success, not to speak of the

mischief arising from their practice, supplies an additional argument in favour of our last conclusion.

The cynanche tonsillaris, in the language of nosologists, in its first appearance, especially in young and robust persons, is very generally a phlogistic disease, and consequently such as is pretty well treated upon the common practice. But it is to be observed, that, after it has once happened to any person, it is very liable to return; and often with such obstinacy and frequency, as to chequer the patient's life with the alternate states of perfect health, and of a very painful and troublesome disease. While it is phlogistic at first, its after recurrence, for a period of time, in different cases, continues to be the same. But, in most cases, a period arrives, sooner or later, when the nature of the disease is totally changed. From the patient's caution to avoid the first form of his disease; and from the ignorance of physicians, so often pointed out in this work, of any other, and therefore their persevering in the plan of cure that only suited the first; the asthenic diathesis, or a state of universal debility, succeeds to the phlogistic, which is a state of morbid excess in vigour; and the phlogistic inflammation of the throat succeeds to the asthenic inflammation of the same part. Physicians, it would appear, never discerned that

difference;

difference; and therefore they have, by a long and laborious process, converted the best into the worst constitutions. Nay, there are not wanting instances of death being the result of their practice, though the circumstances of the case were suited to bear up against a vast extent of improper practice. Every word that we have said on this subject, applies in a much higher degree to two cases, equally contrasted as those we have been speaking of, and equally understood by physicians to be the same, viz. rheumatism and rheumatalgia: Which we passed over in a few words, reserving what we had to say upon the subject to what might occur in this place.

Rheumatism is a most phlogistic disease, and therefore requires a sum total of debilitating powers, greater than ever was thought of before the new doctrine. But when that exquisite plan of cure is applied to it, it is removed in a few days. I have however known, what they took for the same disease, to last 40 years; during all which time the physicians took it for the acute rheumatism, and therefore plied the patient with bleeding, starving, and purging. The consequence of which was, that all the complaints increased in proportion to the progress of the method of cure, the pains became more general and more exquisite, and a diminution of all the faculties of mind and body ensued. The

loss

loſs of voluntary motion amounted to that which conſtitutes formal palſy; nor did the involuntary motions eſcape the effect of the univerſal debility. This, as I have been informed, was the fate of a gentleman in this country of very conſiderable rank, who died ſeveral years ago, whoſe father is ſtill alive, enjoying good health, about the age of 90, and who, if he had been properly managed, in all probability might have attained his father's age.

Ophthalmia, or inflammation of the eye, is commonly, in its firſt appearance, a phlogiſtic diſeaſe, and properly treated upon the ordinary practice. But there are caſes of inflammation of the eye, which never are phlogiſtic: And the phlogiſtic caſe, according to what we ſaid on the paſſive or aſthenic inflammation of the throat, ſoon degenerates into the aſthenic. But, while theſe diſeaſes are ſo diſtinct from each other, phyſicians never obſerved any diſtinction in their method of cure. The aſthenic ophthalmia, like the aſthenic caſes which we have been juſt now ſpeaking of, is in every reſpect treated as a phlogiſtic. Our author has experienced both forms of this affection; and the reſult of that experience is, a confirmation of every thing we have ſaid upon the diſtinction between active and paſſive, acute and chronic, phlogiſtic and aſthenic, inflammation.

We

We have now sufficiently explained the nature of inflammatory appearance; and to such physicians as have sense, instead of opening up a subject of controversy, we have laid before them a large view, and placed it in such a clear light, that they must intuitively discern it in its whole extent. At the same time, so simple is this view, so conformable to all the phænomena, so illustrative of all the inconsistencies and contradictions accompanying every other opinion hitherto entertained of the subject, that physicians must wonder it was not the first that occurred to the minds of observers. The reason for that, however, is evident. Physicians have seldom been engaged in observation, and seldomer in a train to derive any benefit from it. Useless particulars have been their only object of pursuit. They have skimmed upon the surface of things, without diving into the treasures lying hid below. Nature's uniformity was unknown to them. A supposed complication and incoherence in her works, was the only idea that guided them in their researches. Hence, with respect to that part of nature which belongs to their profession, simplicity and uniformity, connection and coherence, have been so little suspected, that, from the days of Celsus to the present, the most intelligent of the profession have considered it as altogether conjectural. This, however, could

not have been the ſtate of the art, had its cultivators ſet out with the juſt and philoſophical principle, which ſuggeſted the whole detail of the new doctrine, That nature is ſimple, uniform, and conſiſtent; and had they inquired into every particular, viewed in that light, and compared it with other particulars, and theſe with others, till they roſe to a general fact, and, from ſeveral of theſe, proceeded to an univerſal one. But no writer, no leader in the ſchools, either knew this to be the only road to improvement in the profeſſion, or had it in their power to proceed in it. The inquiry into particulars, required time, and patience, and labour. It was repeated exerciſe in every one of the particulars, and conſidering each in every point of view, with a diligent compariſon and adjuſtment of them, ſo as to bring out a fundamental and univerſal fact or principle, agreeing with each and all the particulars, to which each and all of theſe reciprocally applied, that promiſed either improvement or diſcovery. Such a diſcovery has been made, and preciſely in the manner juſt now deſcribed. A previous inquiry into the whole detail of the phænomena of life *, has been inſtituted. Several particular facts have been carefully, painfully, and patiently compared with each other. General facts have been deduced

* See above, p. 116, to 118.

duced from theſe, and a univerſal or fundamental one from the general. The phlegmaſiæ, or phlogiſtic diſeaſes with inflammation, were firſt aſcertained. After that, the phlogiſtic exanthemata were inquired into, and found to differ in no eſſential circumſtance from them †. Our author's attention was next directed to the general diſeaſes accompanied with a diſcharge of blood. Theſe, contrary to the common opinion of their being phlogiſtic through their whole courſe, and therefore to that extent requiring the ordinary plan of practice, he diſcerned, and with a degree of doubt, which he has not yet determined, to be only phlogiſtic in their beginning; but, that afterwards, and perhaps even at firſt, they were purely aſthenic. We have already obſerved the light, which his own experience on the gout ‡, and his obſervation on aſthma, have thrown upon theſe diſeaſes; proving them, as well as all the other caſes, which were afterwards taken notice of, to be purely aſthenic, contrary to every idea hitherto entertained by phyſicians. With theſe, in the progreſs of his inquiry and compariſon, he diſcovered, that epilepſy, idiopathic apoplexy, palſy, hyſteria, and idiopathic dropſy in all its forms, were to be conjoined ‖. Laſtly, he has given ſuch an explanation of the phæno-

† El. Med. cxxx, to ccclxxi.

‡ See above. ‖ See Prefat. ad El. Med.

phænomena, which we have been juſt now laying before the reader, as to ſhew their perfect conformity with his fundamental principle, and their inexplicability upon any other. The diſcovery of the hot fit of intermittents, and of the ſeveral aſthenic inflammations, is now completed; and every embarraſſment, which aroſe from all views hitherto taken of them, is now perfectly removed. In one word, ſo far as we have hitherto proceeded, not only has ample proof been brought, that there are a number of morbid affections, depending upon a cauſe hitherto unknown to phyſicians, viz. debility, but that theſe can be all united into one identical form of diſeaſe, in which no caſe differs from any other but in degree. The amount, therefore, of the whole is, that, while the phlogiſtic caſes conſtitute one form *, the aſthenic all unite to conſtitute another; and therefore there are only two diſeaſes affecting the whole ſyſtem: and that every thing elſe, which from the ignorance of phyſicians has been denominated *diſeaſe*, is only local affection. Which, as it eſſentially differs from the former, ſhould alſo be diſtinguiſhed from it by difference of appellation. But this nomenclature, though juſt and exact, and flowing from philoſophical diſcrimination, will be as new to phyſicians as the view of the living ſyſtem, which

* Elem. Med. and Brown's Lect.

which ſuggeſted it. They have talked of univerſal, general, and local diſeaſes; but that was mere talk: The meaning of theſe words was unknown to them.

We ſhall now give a few other caſes, which have alſo been ſuppoſed ſo many diſeaſes, different from each other, as well as from thoſe caſes which we have proved to belong all to the ſame form of diſeaſe. We ſhall ſhew the error of that opinion; and prove, that the caſes ſo judged of, are alſo all reducible to the general form we ſpeak of.

There is a caſe of diſeaſe, the moſt frequent of all others, except the common cold, or *catarrh*, as it is called by phyſicians. It ſometimes ſhews itſelf by complaints of the ſtomach, ſuch as loſs of appetite, loathing of food, nauſea, and theſe ariſing ſometimes to formal vomiting, accompanied with marks of inflation, and ſometimes acute pain, in the region of the ſtomach. At other times, with more or leſs of the ſymptoms juſt now deſcribed, it diſtinguiſhes itſelf by a looſe belly, and gripes, and other uneaſy feelings in the track of the inteſtines. It varies ſtill further on other occaſions, by ſhewing itſelf in the form of obſtinate coſtiveneſs, with *borborigmi* as phyſicians call it, that is, a certain noiſe in the inteſtinal canal; and by pain more or leſs fixed, ſometimes very

 fixed

fixed and very severe? In the last case, vomiting often supervenes, sometimes bilious, at others stercoraceous. The most common seat of the fixed pain is above or within the upper part of the haunch-bone, by anatomists called *os ilium*. While that is the case, at the same time the seat of the pain is in the opposite side, where the great gut takes a sweep, or makes a turn, called the *sigmoid flexure* of the colon. With respect to these varied appearances, when the complaints are chiefly of the stomach, nosologists consider them as forming what they call a *genus* of disease, that is, a disease different in kind from any other; and many are the others which they suppose so different. To this genus they give the name of *dyspepsia* *. The concourse of symptoms comprehended in the second part of our description, the same nosologists consider as another genus of disease, different from the last as well as from every other; and they give it the name of *diarrhœa* †.

In the part of the description, of which costiveness is a distinguishing symptom, they find another genus, likewise different from both the last mentioned, and from all others; to this they give the name of *colic* ‡. Further, when the vomiting, which we spoke of, supervenes upon the

* See Cullen's Sinop. 2d ed. G. xliii. † Ibid. G. lvii.
‡ Ibid. G. lv.

the last mentioned concourse, they consider the disease in this part of its progress to be very different from the preceding stage which they denominate colic; and they call it an *ilius* *. And, from the appearances which present themselves on dissection, they tell you twenty idle stories about the state of the intestines within; as if the situation of the part, produced by the full course of a disease which proved fatal, should be considered as the same with what took place in the commencement of the disease. They stop not here. For, when the fixed pain happens to invade the left side of the belly, in consequence of its cause affecting the great gut in the part which we have described; from the vicinity of that part to the left kidney, they suppose this kidney to be the seat of the pain. And then, like a Proteus, or the effects of Morpheus upon the imagination in dreaming, the morbid case, which, under all these varied appearances, we shall prove to be one and the same, not only in itself, notwithstanding of these appearances, but with all the asthenic cases which we have hitherto taken notice of, is metamorphosed by the dreams of physicians into what they call a *nephritis calculosa* forsooth. Which is another genus, according to them, equally different from those we have related, and from all other genera of the supposed

* See Cullen's Synop. G. lv. xix. Vid. ibid. Sauvag.

posed circle of diseases; differing *ad infinitum* according to their hopeful notions. Here we cannot help observing upon the present and every other part of medical philosophy, with a great philosopher in ethics, that "the whole is a "riddle, an enigma, an inextricable mystery." But we go further than him when he adds, that "doubt, uncertainty, and suspense of judgment, "appear to be the only result of our most accurate scrutiny into the subject." For we can demonstrate, with respect to the subject under our inquiry at present, that the whole is as diametrically opposite to truth, as incoherent conceptions, without exercise of judgment, reference to fact, or consistency among themselves, can be. If I know the truth, I can sit down and compose a proposition geometrically opposite to it, as a straight line is the rule by which we can only judge of the deviations from that direction which constitute a curve line. A person may be so bewildered, and so wrapped up in darkness, as to wander any given time, while he is at no great distance from his own house. In this state of aberration, he may be supposed sometimes to approach it, at others to recede from it, and therefore not always equally distant from the object of his pursuit. But, till the darkness is dispelled, and the objects around him illuminated, and consequently the one he is in quest of, nothing but mere

chance

chance can conduct him to the place of his deſtination. But if the ſame perſon, in conſequence of the falſe appearances which conſtantly preſent themſelves to bewildered travellers, ſhould ſuppoſe his houſe in a very different direction from that in which it is placed; in this deluſory ſtate of his ſenſes, he might wander to all eternity, and never get to his own houſe. This is the ſtate of phyſicians in their inquiries after truth. They are loſt in the utter darkneſs, or falſe light, of their imaginations; and their approaches to truth are as little in their favour, as their aberrations from it. All this is well illuſtrated by the incoherent notions of phyſicians with reſpect to the preſent ſubject.

The caſe before us is one and the ſame. It is a modification of aſthenia, originating from the powers that produce any other, conſiſting in the ſame ſtate, and to be removed by the ſame remedies. It depends upon diminution of excitement, or a ſtate of debility, occurring over the whole ſyſtem, and predominant in the alimentary canal. Its indication of cure, therefore, is, as in every other caſe of aſthenia, to invigorate the whole ſyſtem; and therefore the alimentary canal, as a part of that whole *. The remedies, therefore, to be employed, are the ſeveral ſtimulants, more or leſs diffuſible, according to the degree

* El. Med. and Brown's Lectures, on Aſthenia.

degree of prevalent debility. And we have further to observe, that as the part chiefly affected is directly acted upon by the most powerful of our remedies, their effect in restoring the state of health is proportionally more complete †. But it does not follow from this observation, that when the labouring part is out of the reach of contact with the remedies, these will therefore have no influence upon them. The contrary is the truth; as is every day evinced by the complete solution of peripneumony and idiopathic dropsy, from the use of remedies that act over all the system, though they come not into contact with the labouring parts ‡.

How widely different from this simple idea, so consonant with every other to the whole extent of the subject, so conformable to the fundamental proposition of our science, as we may now justly denominate it, are the notions of physicians, as we shall next shew, in their method of cure!

Upon inquiry into the state of the alimentary canal in this case of asthenia, it is found, that spasmodic and convulsive affection of that cavity constitutes the most distressing and painful symptoms that occur; as tormina, fixed and severe pain, &c. Both these affections depend

* El. Med. and Brown's Lectures on Asthenia.

† El. Med.

pend upon the general cauſe which we have aſſigned. But the former is produced by the co-operation of diſtenſion from indigeſted or feculent matter, but more eſpecially from air. The latter is excited by a preternatural ſtimulus; ſuch as may be afforded by an acid; which we know, in fact, is generated in weak ſtomachs. The ſtate of the muſcular fibres, acted upon by theſe powers, is a ſtate of diminiſhed tone and diminiſhed denſity; what pathologiſts call *atony* and *relaxation*. Theſe are in proportion to each other; becauſe it has been proved, that the degree of tone is in proportion to the degree of excitement in the muſcular fibres, and the degree of denſity in proportion to that *. There is no other way of explaining the known fact, that a given portion of muſcular fibres in an animal will bear, without rupture, a force many times greater than the ſame portion of matter can bear after death, than by referring it to the ſtate of excitement. With reſpect to muſcular fibres, their excitement produces contraction, or a due tendency to this. The contraction, as well as the tendency, implies, that the conſtituent particles of the ſeveral fibres, ſo contracted, are brought nearer to each other, which is what we call their denſity, and thereby better fitted to reſiſt any power that tends to disjoin them. In this way it is that the property of ſimple ſolids, to which

* El. Med. xlvii. to liii.

which we have given the name of *denſity*, implies a proportional degree of ſtrength. To apply this to our preſent ſubject: When the muſcular fibres diſtributed upon any cavity have their denſity diminiſhed, that is, are in a ſtate of laxity; and at the ſame time a diſtending power, ſuch as the one we have mentioned, is applied to them; the effect is, that they yield more readily to it, than they would in a greater ſtate of denſity. But as it is a property of muſcular fibres, by which they are diſtinguiſhed from all other bodies in nature, as well as from themſelves in their dead ſtate, to contract, in conſequence of a ſtretching power being applied, and while it is applied.*; it thence follows, that the muſcular fibres, in the preſent caſe, when acted upon by the diſtending power, will firſt be ſtretched, in conſequence of their relaxation, beyond their due dimenſion, and then contracted in proportional exceſs. And as this is a violent action, its effect is what we find upon every occaſion to be the reſult of ſuch violence, viz. pain. Laſtly, as it is only in a certain meaſure of extenſion and contraction that the alternate contraction and relaxation of muſcular fibres can take place, it follows, that, in this exceſſive ſtate of extenſion and conſequent contraction, the balance betwixt contraction and relaxation is deſtroyed;

* Haller. Elem. Phyſ. and Brown's Lectures.

deſtroyed: The contraction becomes exceſſive; and as its cauſe, the extenſion, or, in the preſent caſe, the diſtenſion, ſtill remains, the effect, viz. the exceſſive contraction, muſt ſtill remain.

The cauſe of this ſtate of muſcular fibres will, from what has been ſaid above, readily occur to the reader. It is not, as phyſicians commonly ſuppoſe, an increaſed activity in the muſcular fibres; which is what we call *increaſed excitement*, and what many phyſicians call an *increaſed influx** of the nervous power into the contracted muſcular fibres; and therefore requiring, as its remedies, powers diminiſhing that influx, diminiſhing the energy of the nervous power, or, as we would ſay, impairing excitement. That is not the cauſe, nor is this the remedy. Let it be recollected, that the cauſe is already aſſigned; and that it is a diminution of excitement, and its conſequences, atony and laxity of the muſcular fibres, operated upon by a ſtretching or diſtending power. The indication of cure, therefore, flowing from this expoſition of the cauſe, is, to increaſe the excitement of the muſcular fibres, by which their tone and denſity may be increaſed, and they enabled to reſiſt the effect of the ſtretching power in diſtending them to exceſs. This, and this alone, is the radical cure of theſe permanent contractions, which have, at all times of the profeſſion, been denominated *ſpaſm*. It might

* Cul. Lect.

might here be thought, that removing the diſtending power might anſwer the ſame end. Which we deny: becauſe, from the ſtate of the caſe laid before our reader, though the diſtending power were removed, as well as the contraction more immediately excited by it, the muſcular fibres would, however, ſtill remain in the ſame ſtate; that is, in a ſtate of atony and laxity; which is the debility of muſcular fibres, originating from diminution of excitement in them. Now, though, by an execution of the laſt-mentioned indication, the ſpaſm ſhould be removed, the diſeaſe, both of the part and of the reſt of the ſyſtem, would ſtill remain; which is a ſtate of diminiſhed excitement in both, producing the ſeveral phænomena called diſeaſe. Nay, all this might happen, not only without the removal, but with an increaſe, of the diſeaſe. Accordingly, if by ſuch a method of treatment as that we ſpeak of, or any other, the ſtate of the ſpaſm in the alimentary canal ſhould give way to that of palſy, and this to gangrene; would any perſon in his ſenſes perſuade himſelf that he had cured the diſeaſe and ſerved his patient? The contrary is the plain truth. But it is a truth that phyſicians never could diſcern; as may be fairly concluded from their univerſal ſuppoſition of the ſeat of every diſeaſe being the part more ſtrikingly affected, and from the direction of all

their

their indications to the relief of that part. A conclufion that we draw from the above reafoning is, That the ufe of the carminatives, which were formerly employed to expel wind, though very proper to a certain extent, was introduced upon a very falfe theory. They were fuppofed to poffefs a property of driving the air before them. But they acted not upon the air. They were ftimulant; and, by increafing excitement in the mufcular fibres, they enabled them to refift the diftenfion of the air, and to diminifh the enormous contraction arifing from that diftenfion; that is, to remove the fpafm, and reftore the natural contractions alternating with relaxation. Another idea has prevailed long, and which it is impoffible to drive out of the noddles of the ordinary practitioners. It is, a fuppofition that emetics and purgatives have a property of diflodging from the alimentary canal all its hurtful contents, and among the reft pent up air. But this, from all that has been faid upon the fubject, it muft appear, is a very great miftake. Vomiting and purging, efpecially when induced by the trafh called emetics and cathartics, are moft debilitating powers, as we have more than once had occafion to obferve. As fuch, they are excellent remedies in the feveral cafes of the phlogiftic form of difeafe. But, for that very reafon, among others which we have formerly

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taken notice of, they are detrimental, and may be pernicious, in every case of the asthenic form. In the present case, they increase the debility of the whole system, and the laxity and atony of the morbidly contracted fibres. And if ever spasm yielded to their operation, it was owing to that operation increasing the debility to a higher degree than that which is compatible with spasm; and therefore their only effect was an increase of the disease. Bleeding has also been employed with the intention of removing a spasm; and with the same effect as purging and vomiting, that of increasing the debility upon which the disease depends.

The convulsive state of the alimentary canal is owing to the same state of the fibres that produces spasm. But the exciting power, instead of distension, is a preternatural stimulus, applied to the fibres in their weakened state. Thus, often in *dyspepsia* as it is called, and constantly in cholera, a very concentrated acid is generated in the stomach; so concentrated, as, when rejected by vomiting, to corrode vegetable matter. Any degree of such a stimulus as this, applied to the fibres in the state of weakness which we have described, could not fail to throw them into very irregular and enormous contractions. These contractions exhibit an appearance of increased vigour; and therefore physicians have

referred

referred them to the cause mentioned above. We will not contend with them about the degree of contraction that takes place. And, with respect to both spasm and convulsion, we have only to observe, that, whatever be the state of contraction in them, their function of contraction, considered as found, is an impaired one: which is proved by the arguments which we have already often repeated. Spasm and convulsion never take place but in a disease of debility. All the other symptoms accompanying them are evidently such. Debilitating remedies, which increase the other symptoms, also increase them; and stimulant ones, which, according to their degree, relieve and remove the other symptoms relieve and remove them. The indication of cure, therefore, in convulsion as well as in spasm, is, to increase excitement over the whole system, and therefore in the contracted convulsed fibres. In consequence of which, as in the former case the distending power, so in the latter the preternatural stimulus, is carried off. But, in this case of convulsion, diluents and demulcents have only been thought of as remedies, and opium to relieve pain. To the former we have no great objection; because a moderate quantity of watery fluid, and of those substances which are called demulcents, may possibly be blended with

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the acrid offenſive matter, and, by diffuſing or inviſcating it in their maſs, break its force; and at any rate they can do little harm. But they contribute nothing to a natural cure. For, though what can be eaſily granted ſhould happen, viz. that the acrid matter is carried off by the uſe of theſe articles, the ſtate of the fibres in the part, and the ſtate of excitement over all, and therefore the diſeaſe, ſtill remain. We muſt here therefore, as well as in the former caſe, and in every caſe of debility, have recourſe to the indication of cure ſo often repeated; that is, to increaſe the excitement over all, and therefore in the part more eſpecially affected. We have ſaid, that the ſeveral appearances of ſeeming, but not real, difference in the alimentary canal, miſtaken by phyſicians for ſo many different genera of diſeaſe, are one and the ſame caſe, and preciſely the ſame with every other modification of aſthenia. This we could prove by an hundred examples of caſes ſucceſsfully treated upon the principles of this doctrine. But we ſhall content ourſelves with two.

A Gentleman, of a thin habit of body, extremely temperate, after expoſure to cold, and ſubjection to a more ſparing diet than was even uſual to him, was ſuddenly ſeized, early in the morning,

morning, with a violent, acute, and intolerable pain in the region of the colon. The firſt ſurgeon of the place was called; who immediately bled him, nearly *ad deliquium.* The pain abated, and he was eaſier during that day. His brother, who was then a pupil of Dr Brown's, and living with him near Edinburgh, had occaſion to go into town with the Doctor that day. Upon calling upon his brother, he was informed of what happened; and, as he was then aſleep, and ſeemingly eaſy, the family formed the moſt ſanguine hopes from the profuſe bleeding. Dr Brown was immediately informed of the caſe by his pupil, who ſeemed to think that it greatly invalidated the Doctor's new doctrines. Dr Brown declared, that although the bleeding had given him temporary relief, all the ſymptoms, unleſs an oppoſite treatment was inſtantly ordered, would return, and perhaps might prove fatal. This alſo was the opinion of his pupil. But he could not, however, upon reflecting, think of daring to oppoſe his opinion to that of ſo notable a practitioner; and the more ſo that his brother ſeemed at that time eaſy. The very next day, however, ſhewed that Dr Brown's prognoſis was not the reſult of conjecture and the product of chance, but that it proceeded from a juſt eſtimation of the laws of the animal œconomy. Every thing that he predicted actually took place. All

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the ſymptoms increaſed to an enormous degree. The pain became intolerable; which was further aggravated by the violent vomiting and frequent looſe ſtools, with great proſtration of ſtrength. Two eminent phyſicians next were called: who plied the patient with emetics, cathartics, and diuretics; and further reduced him by an abſolute denial of wine, and of every thing that could ſupport him under this rapid progreſs of debility. The patient found himſelf verging towards his final diſſolution. He was thrown upon the bed in an expiring poſture. His brother found him in ſuch a deplorable ſituation, that he was determined, without loſs of time, at all hazards, to employ Dr Brown's practice in its fulleſt extent. He accordingly inſtantly gave him 100 drops of laudanum in a large punch-glaſs of double cinnamon-water. This ſtopped the whole rage of the diſeaſe in five minutes. Next morning, at ſix, he gave him a large breakfaſt-bowl full of port-wine, boiled with different ſpices. A few hours after, a zealous pupil of the univerſity, a warm friend of the patient, coming in, and being informed by the latter what had been done, exclaimed againſt the practice, and informed the ſurgeon of what had been done. The relief which the patient had received, was both ſo ſudden and complete, that he was not to be excluded from the benefit of a plan of cure, of the propriety

propriety of which, and of the pernicious tendency of the one recommended, his feelings and experience gave him the moſt ample evidence, by the unſolicited interfererence of any gentleman. He continued that day, therefore, the uſe of cinnamon-water and beef-tea. Next day he continued perfectly eaſy. The following day he was perſuaded by his phyſicians to have another injection. But he was like to have paid dear for his compliance. A relapſe, more ſerious than the former, followed. He was glad again to have recourſe to his brother; who preſcribed 120 grains of laudanum, with 25 grains of vol. alkali, in three ounces of double cinnamon-water. By this, and the uſe of good Madeira, with opiates, he recovered ſo completely, that he could be ſupported by animal food, and a moderate proportion of ſound wine after each meal. A twelvemonth has elapſed ſince this cure, without the leaſt tendency to a return of the diſeaſe. This cure can be vouched by the patient himſelf, by his brother who executed it, and by the reſt of a family whoſe truth and integrity none will dare to call in queſtion. They have a large circle of reſpectable friends; and have thought it incumbent upon them, as a duty they owed to truth, to take every opportunity of aſſerting, that this gentleman was ſaved upon the principles of the new doctrine, and the patient ſnatched from the

 jaws

of death, in which he had been placed by the practice of thofe who are the leaders of medical doctrine.

The reader may here remark what a degree of refolution and firmnefs our young practitioner would have occafion for in oppofing alone his practice to that of fo many names of the firft diftinction, and how ftrong his conviction of its propriety muft have been, when he did not fuffer the influence, the intrigue, and the artifice of fuch perfonages, to fway him from his fixed purpofe. If his brother had died, his death would have been charged upon him, the reader will guefs by whom. But, fuch is their verfatility, that, finding the cure too glaring to be difputed, and recollecting that there could be as little doubt of the pernicious tendency of their practice, they changed their ground. And, becaufe they had adminiftered a little opiate in an injection, and their equal infignificant dofe by the mouth, they had the impudence to give out to their friends, and to induce their underftrappers to fpread a report, that, fince it was by opiates that the cure was effected, and they had given an opiate in the manner juft now mentioned, there was therefore no difference betwixt their plan of cure and the effectual one. But let it be obferved once for all, that this is a villanous, deliberate falfehood, and within themfelves they know it to be fo.

Whatever

Whatever were the contents of their injections, the reader will clearly discern, that, instead of contributing to the cure, they manifestly increased the disease. Bleeding, vomiting, purging, and glystering, are highly debilitating powers, as I have repeatedly observed. This disease, as we have proved, and as its cure by the use of the most stimulant powers will evince to every one, was a disease of debility. The true amount of their indication of cure was, to remove a disease consisting in a state of debility, by increasing debility to an enormous degree.

It is in vain for them to pretend, that the useless proportion of laudanum which they administered could in any shape place their plan of cure upon the same footing with the other. The state of the patient, after a full course of their plan, compared with that which was produced by the first exhibition of the remedies upon the other, and steadily supported ever after, unless when they interfered by ordering their last injection, gives the loud lie to the vile report, which was so industriously and maliciously propagated.

The other case we have to mention is that of an old lady. She had for the space of a month laboured under symptoms of crudity, indigestion, and irregularity of her belly. At last her stomach complaints increased to the degree of very

 frequent

frequent vomiting for two days. On the third, the vomiting became enormous, and almoſt perpetual. Dr Brown was ſent for, and by a moderate ſhare of laudanum, and leſs than three glaſſes of ſpirits, ſtemmed the whole tumult within three hours. He took a longer time with this cure; becauſe, from the lady's advanced age and delicacy of conſtitution, and from the raging diſpoſition to vomiting, he was aware that a large doſe of laudanum might not be kept upon the ſtomach. He choſe, therefore, to proceed piecemeal: And as he expected two or three attacks after the firſt exhibition of his remedies, which accordingly happened, he followed every one of them with a new doſe. He predicted all this to the family; and, after the third vomiting, told them the work was finiſhed. He left the patient in a ſtate of happineſs, the feeling of which was increaſed by her compariſon of it with her former ſtate: ordering her to be doſed, before ſhe went to ſleep, with negus, and, when ſhe awakened through the night, to take half a glaſsful of ſpirits and a quantity of beef-tea; and to obſerve the ſame conduct the next day, till he ſhould call upon her. This laſt part of his directions, however, was altogether omitted; from a perſuaſion in the patient, and in a female friend who attended her, that the cure needed no further ſupport; and from a fear that the

ſpirit

ſpirit might fly to her head, and make her hot. Accordingly, when the Doctor returned, he found the patient ſo weak, that ſhe could hardly ſpeak to him, to tell him that ſhe had not vomited, but with great difficulty had kept herſelf from it all the forenoon. He reprimanded her gently; and begged ſhe would not oppoſe a mixture of womaniſh and medical prejudices, to the conviction which this happy cure muſt have produced in her own mind of its propriety. He told her, that the remedy, inſtead of heating her, would cool her; and, inſtead of producing headach, would remove every degree of it, that ſhe might be labouring under. He inſiſted upon her taking a ſmall glaſsful. She did ſo. And in leſs than two minutes, the Doctor, perceiving her to talk in a ſtrong and healthy tone, deſired her friend to turn her attention to what had happened. She did ſo; and perceived her to be greatly recruited by the cordial: And the patient herſelf confeſſed, that it had every effect which he had foretold. Her ſtrength was reſtored; her ſkin cooled; her headach removed: And ſhe aſſured him in a tone of emphaſis, that ſhe would never for the future depart a hair's-breadth from his directions. They were conſequently all complied with through the following night and next day, and the patient's health confirmed.

Her

Her gratitude, and that of the family, has been amply testified by their taking every opportunity, among all their numerous acquaintances, by every one of whom they are justly respected for their worth and integrity, of confessing, that the Doctor's merit to this lady was no less than that of saving her life. This case of disease has met him more frequently than any other in the course of his practice; and he has always had the happiness to treat it in the same successful manner. It is to be hoped, after pointing out the pernicious tendency of the common practice in it, and the equally simple and salutary one deduced from the new doctrine, that the eyes of both patients and practitioners will be opened to a truth, in which the health of the former, and the credit and reputation of the latter, are so deeply interested. If the particulars of the detail which we have given, be candidly weighed and examined, it is impossible that the intrigues and artifices of the common practitioners, or any false estimation of interest, should continue to preponderate against the common sense of mankind, appealed to in a matter that deeply affects their most important interests.

We now proceed to give, as an example of febrile cases being precisely the same disease with those of which we have already given an account, the case which we formerly commented upon,

as it was taken by me long before any diſpute aroſe, or could be foreſeen to ariſe about it *.

A Gentleman, aged 20, of a ſlender make and delicate habit of body, from much confinement to ſtudy, perfect inattention to an invigorating diet, accompanied with dyſpeptic ſymptoms, ſuddenly perceived a great weakneſs in his right ſhoulder, which was ſoon followed by a total incapacity to perform any buſineſs with it, and ſoon after by a complete diſlocation. In this ſtate he remained for ſeveral months, having conſulted all the more eminent practitioners without relief. His humerus was obliged to be ſupported in its natural poſition, or a complete diſlocation inſtantly ſupervened. This was the condition and ſtate of his ſhoulder, when it was accidentally mentioned to a gentleman †, who luckily conſidered it as a general and not a local diſeaſe; in which latter light it had been univerſally conſidered. His plan of diet was totally altered, from low, to the moſt invigorating. He was ordered to promote his appetite, which was bad, by a more than common relapſe from ſtudy, a conſtant attention to moderate exerciſe, and equilibrium in point of temperature: to which was added, an injunction to refrain from the cold bath; and, if he uſed it at all, to uſe it to-

* See page 135. to 149.

† Doctor Brown.

topically. From this plan a perceptible increase of vigour instantly accrued, (though, the day before these directions were given, a dislocation, from inadvertence to support the arm, had happened); and in less than a month or five weeks, a degree of vigour not much inferior to the other arm took place. The muscles which surrounded the joint were, however, diminished considerably in bulk. This happy prospect was but of short duration. One day lately, having used the cold bath, from which he went to see a patient in a typhus, in a short space of time after, he perceived an evident prostration of strength and languor. To remedy which, he had recourse to the cold bath the next day. From this period, the greatest debility, with intolerable headach, supervened, to so great a degree as to threaten delirium. Emet. Tart. in small quantity was administered at this period *, when a friend called upon him, and ordered its discontinuance. This was myself. In place of which, the free use of wine was prescribed; together with a draught or two in the night, as occasion suggested; the composition of which was 35 drops of laud. and 20 of vol. alk. For three or four days this practice was continued, with the occasional administration of a clyster of milk and water; and with such success as flattered with the most sanguine hopes of soon removing the disease. Unfortunately

* The third day of the disease.

nately a physician was called in (viz. 7th day); who, being rather dubious as to its nature, advised some emet. tart. to which the patient would not consent. The draughts, however, were continued for a night or two, without any advice from the physician, but always with relief. A nurse being called in, obliged their being discontinued; and in short, every thing, unless ordered by the physician. His quantity of wine, from three pints or more, was reduced to one, and less, in the day. From this time till the 15th day, the disease made a most alarming progress. This day a total incapacity of speech, and for taking any nourishment, unless by a tea-spoon, supervened; together with perfect restlessness, and want of sleep, for 48 or 50 hours. His pulse 105. All hopes of recovery altogether ceased on this occasion, as well among the physicians as nurses; when 100 drops of laudanum, in two separate doses immediately after each other, were thrown in (12 a. m.) In less than four hours after, rest and refreshing sleep supervened. At 7 p. m. his pulse was reduced to 90. The laudanum was continued with the wine in large doses through the night: and in the morning after, there was not the least degree of fever; his senses were perfect, and his speech returned. The nurse, relying upon this disappearance of bad symptoms, omitted the laudanum, and gave little

or

or no wine for that day and the following night; on which great delirium happened during that and the night following. Wine was given during this interval, but in too ſparing a quantity. Great coldneſs of the extremities took place, ariſing from the feet to the pelvis, (viz. Sunday and Monday laſt). In this dilemma ſtrong cinnamon water was given (Monday), and he was ordered (by me) to be wrapt in warm flannel during the day and night; which recovered his heat and ſenſes ſo remarkably, that he has not relapſed in either, and continued well ever ſince.

Monday, November 13. 1780.

In this caſe, the progreſs of debility towards delirium, when increaſed by the ordinary evacuant and debilitating plan of cure, and the other ſymptoms of morbid affection of the head, which have been imputed to inflammation within the cranium, muſt be very conſpicuous to every one; and the prevention or removal of that affection by a very liberal uſe of the moſt diffuſible powers, will be equally evident. But all this is reverſing the common opinion; according to which it is ſuppoſed, that exceſſive action occaſions that formidable affection, and conſequently that diminiſhing that muſt prove the cure. This is another inſtance, and of the higheſt conſequence, of phyſicians never having had an idea of aſthenic

inflam-

inflammation. The affection here was removed by the use of wine: But it would have been much more quickly removed had the wine, according to Dr Brown's direction, been administered more plentifully, and supported by other, and more powerful, stimulants.

By the same plan of cure, viz. the use of highly diffusible stimulants, Dr Stevens cured a putrid fever in the Grass-market, in a few days. The stimulant upon which he chiefly depended at first, was musk: But, finding the circumstances of the patient inadequate to the price of it, he afterwards desisted from its use, and employed opiates and vinous draughts. Dr Brown himself saw this case twice or thrice.

Another case of putrid fever, which Dr Brown and Dr Stevens both saw, was, by the same management, so far removed in 24 hours, that the woman scrupled not to engage herself in the laborious work of washing. This exertion, however, exceeded her powers, and produced a return of the disease: Which was completely removed in nearly the same space of time. Let the febrile cases which we have given, suffice for an example of many more that might be given, of the happy effects of the new doctrine in a set of diseases, in which the common practice is well known to be not only impotent but pernicious.

THO-

THOMAS COLLINS, *Æt.* 25.

July 15.

COMPLAINS of extreme pain and ſenſe of weight in his head, with univerſal languor and debility. His face is ſomewhat flushed, ſkin very hot; tongue very foul, and dry; pulſe 106; belly regular. His complaints attacked him ſuddenly, when upon guard, with chillineſs and ſhivering, followed by intenſe heat and the other ſymptoms, which ſtill continue unabated. Knows no cauſe for his complaints.

App^{r}. C. C. tempor. utriq. Foveantur crura.
Toaſt and water for common drink.

16.

Head much relieved; tongue foul, with conſiderable thirſt; belly free; tickling cough at times; pulſe about 116, regular, full, and ſoft.

Hab^{t}. Julap. Salin. ℥iij. omni bihorio.
A bed-chair and a nurſe.

17.

A good night, but delirious ſince morning; thirſt increaſed; belly regular; pulſe about 120, and feeble; inclined to ſleep.

Hab^{t}. Vin. Rubri ℥j. omni hora.

18.

A bad night, with delirium; frequent looſe watery

watery ſtools. Pulſe above 120, ſoft, and rather firmer; tongue cleaner; thirſt continues.

℞. Calx. Antim. Nitr. gr. x. Conſerv. Roſ. q. ſ. ut ft. bolus, omni bihorio ad 5tam vicem, niſi prius edatur aliquis effectus, ſumend. Habt. Aq. Card. ℥iij. omni bihorio. Omr. Vin.

Hora 9na p. m. Pulſe hardly perceptible; hands and feet cold, with involuntary ſtartings and laborious breathing; eyes ſeemingly fixed.

℞. Spir. Vin. Gall. ℥viij. Capt. ℥ij. omni hora ex Aq. ℥iv.

19.

Previous to the uſe of the ſpirits and water, had taken three of the boluſes. The looſeneſs which had continued was conſiderably increaſed towards evening; no other ſenſible effect from the boluſes. Towards 10 at night, pulſe was become firmer, the involuntary ſtartings gone, and his looks much amended. The free uſe of ſpirits and water was continued: ſlept tolerably, with leſs delirium; had ſeveral more looſe ſtools through the night, and another ſince; is at preſent under a ſweat; thirſt abated; free of complaints. Pulſe 84.

Contr. Aq. Card.

20.

A tolerable night, without delirium; thirſt moderate; belly regular. Pulſe about 84.

Contʳ. Aq. Card.

21.

Habᵗ. om. mane Pulv. Rhæi gr. vj.

Table-broth, with rice-pudding, for dinner.

23.

Omitʳ. Pulv. Rhæi.

Difmiffed cured.

In the laft febrile cafes, illuftrations were given of the happy application of the new doctrine to the phænomena of the difeafes called *fevers*. But in this cafe the reader has an opportunity of difcovering its high importance in attracting the attention of a practitioner who had never been imbued with it. For the firft three days, he did not recede much from the common practice; and his good fenfe enabled him to difcover, from the increafing frequency of the pulfe, and the fupervention of other bad fymptoms, that the difeafe was increafing, with bad hopes of the event. He immediately found it neceffary to change his plan, and to have recourfe to the moft powerful diffufible ftimulants. The event juftified his expectation. He made fuch a cure of a bad cafe of fever, as I fuppofe never was made in that houfe before. This gentleman difmiffed his patient cured; but we cannot difmifs him without rendering him the tribute of praife due to his candour and judgment for fupergra-

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ding the prejudices of his education, and prefering a persecuted doctrine, because he saw it salutary, to a pernicious one, though protected by the united influence and authority of the leaders of medical doctrine in the place. We think it not fair to conceal his name. The author of this happy cure is Dr James Hamilton, one of the physicians of the Royal Infirmary of Edindinburgh. And we hope, for the good of the poor, who are the subjects of medical practice in that place, for the instruction of the students, and consequently the more general good of society, that the example which he has set will be followed by his collegues, whether clinical or ordinary; and that he will have the honour of having introduced, and seen carried into execution, a complete revolution of the medical art in the chief nursery of its practical part in Scotland.

We shall now finish our exposition of cases, whether as exhibiting practice of a hurtful or pernicious tendency, by observing, that, in treating of the morbid affection of the alimentary canal, the nature and cure of which we fully explained, but thought it not of consequence to give it any denomination; we should there have mentioned some cases of the same nature, where the vomiting was assiduous, and the pains accompanying the affection excruciating to distraction, which

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were cured by Dr Stevens, within this fortnight, by ſuch an abundant uſe of the moſt powerful and penetrating diffuſible ſtimuli, as would aſtoniſh; I ſuppoſe, all the phyſicians upon earth, except thoſe perſons who are acquainted with the doctrine which holds forth to mankind ſuch effectual and ſalutary cures.

After the very full view that we have given of medicine, both in its erroneous and newly reformed ſtate, we think it not neceſſary any longer to detain our readers with further particulars; hoping we have done enough to obtain the aſſent of the judicious and unprejudiced part of them. We had not the vanity to pretend to make an impreſſion upon thoſe of a contrary deſcription. Error and prejudice, at eternal variance with ſound ſenſe and candour, will, under many circumſtances favourable to them, often take their full ſwing in common life; and they will often, for a time, preponderate in the ſcale againſt the moſt certain and important truth. But as darkneſs, or deluſive and falſe light, conſtantly ſurrounds their habitation; while the light beaming from truth diſplays her in her juſt colours, features, and proportions; hence it happens, that though the former, by bewildering the ſteps and dazzling the eyes of the beholders, may for a time conceal their true nature; the latter will need only the pains neceſſary to the reſearch of

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her, and to a comparison of her with them, to beget conviction. Who, after wandering in the dark by a Jack-and-lanthorn, when the day dawns, and the sun rises upon him, would hesitate a moment in discerning the true from the false light? As it is therefore to be hoped, that error and prejudice, however much favoured by many present circumstances, upheld by folly, and protected by authority and influence, will at last, and within no great space of time, totally vanish before the truth, as the false light we have just now mentioned disappears before the rays of the sun; in the mean time, however, they are the fiends which surround the truth, and avert her visitants from the avenues leading to her mansion. They are like the spirits with their shining swords every way guarding the tree of life, and excluding man, after the denunciation of the curse against him, from all access to it. But the author of this great discovery has not only to combat the fiends we have mentioned, error and prejudice, supported on the one hand by folly, on the other by influence and authority: To the latter is superadded interest, ingendering intrigue, cabal, and all the dæmons of detraction and calumny. This is the army raised against him. But, strong as it is in numbers and in hostile arts, its legions arrange not themselves openly against him, they venture not into

into the fair field. The plan of the war which they only can truſt to, is ambuſh and ſurpriſe; and its only object is, the ſecret deſtruction of the adverſary. Malice and fear are their motives: To gratify theſe, they are willing to reſign the glories of avowed victory. Againſt forces ſo powerful and formidable he ſtands, with plain truth, and the adherents he has gained, by his ſide. For ſuch a cauſe, and with ſuch auxiliaries, he maintains the conflict; he gains ground on his enemies; and he cheriſhes the hope that he ſhall be able to ſtorm their inmoſt and ſtrongeſt fortreſſes, and plant upon their higheſt tower his banner of truth.

To come to plainer language: There is a junto of men in Edinburgh, who at all times, from fear of his learning and abilities, have been his determined enemies; and, by all arts but good ones, have uniformly ſought his ruin, and that of a large and innocent family depending upon him. This conduct, firſt of all, was the return they made him for great ſervices done to them as a body, and to certain individuals of them as friends. Their open conduct to him was friendly; their ſecret a plot, a dark Catalinian conſpiracy. Accordingly his ſuſpicion of it was late, and the full detection later. He found himſelf ſtabbed in the dark: And the daggers were poiſoned; but he ſaw not the hands which directed them. His

judge-

ment, however, at laſt came to ſupply the place of information, by comparing one part of their conduct with another. His attention and obſervation provided him with a faithful thread, which guided him through the whole labyrinth. From that time he thought it both ſafer and more honeſt to purſue ſuch a plan of conduct, as the Britiſh miniſtry have ſince done with the Dutch. He choſe to tear off the maſk of their pretended friendſhip, and convert theſe ſecret enemies into public ones. After forming this reſolution, the firſt ſtep he thought proper to take, was to make application for being made a member of a certain literary ſociety *, to which no man's petition had ever been rejected either before or ſince; foreſeeing that he would be rejected. This accordingly happened. But before it happened, he was by one of themſelves informed, that the conſpirators were at work; and adviſed by him as a friend, to withdraw his letter of application. A frivolous and falſe cauſe was aſſigned for the oppoſition. The informer and friendly monitor, who had perceived that our author had a new doctrine of medicine in meditation, began, as it would appear, to fear that it might terminate in the extinction of one which he aſſumes as his own; and, as if there had been no errors in the medical department

* Philoſophical Society.

partment to explode, but his, or those of the patched-up system which he lays claim to; he had the vanity to think, that the sole or chief intention of this new medical fabric was to batter down his. He was, therefore, the prime mover of the plot, as could be proved by many circumstances, with which it is unnecessary to trouble our readers. Whether he had hoped to succeed in the part which at this time he was acting, and was therefore disappointed in the answer he received, is only known to himself. But that answer was, in a tone of firmness, that the application would not be withdrawn; that the applier had long had reason to entertain suspicions both of him, and a set of men connected with him; and that he was resolved to make their present conduct with respect to him, the criterion of his judgment of their intentions towards him: they might therefore do their best or their worst; for his admission into that society, however respectable some of them were, considering the characters of others, was a matter of perfect indifference to him. The plot succeeded: And the next step to be taken was to employ every engine to deceive the injured person into a belief, that this gentleman at least had been his friend. Their next step of conduct to him, was to fill the ears of students with every vile insinuation that could tend to ruin his cha-

racter, either as a man or as a phyſician, or as a public teacher of medicine. And in that they ſucceeded but too well. They had nearly completed his ruin, by procuring almoſt every medical practitioner in the place, to hurt him, as far as their calumnies, united with their own, might effect. Amidſt ſuch an univerſal uproar againſt a ſingle individual, who was ſupported by nothing but the effect that his lectures might have upon young minds, deeply preoccupied by prejudices, and many of them rouſed to rage againſt him perſonally; and this for no other reaſon, forſooth, but differing in opinion from the authors of his perſecution; and with ſhame I acknowledge, that I myſelf, with many other good friends, who are now complete converts to the perſecuted doctrine, were in the number of thoſe who had been ſo abuſed: Amidſt all this, the doctrine delivered in ſucceſſive courſes of lectures, began gradually to gain ground, and proportionally to prevail over the artifices ſo employed to ſuppreſs it. Its adherents of late have been reſpectable, and promiſe to be more ſo every day. It is needleſs to mention the intriguing and buſtle, and intemperance of language, that have been employed againſt it in the Medical Society; where the chairs were filled, and a majority of voices procured, by the influence of the ſame men, and for the ſame baſe end; as if truth,

truth, supported by reafon and fact, could ceafe to be truth, from the fuffrages of ignorant and deluded boys? A fociety has lately been inftituted in the place, which, from the candid, judicious, and impartial conduct of its noble founder, in filling it with the moft refpectable and diftinguifhed names at home and abroad, and in cautioufly fencing it againft the encroachments of thofe freezers of freedom of thought, thofe fuppreffors of all improvement in every department of knowledge, thofe craftfmen, who impudently arrogate to themfelves the exclufive right of converting all the arts and fciences into a machine of gain to themfelves, will certainly do honour to the kingdom, if their intrigues could be kept out of it. Our author, without any perfonal acquaintance with the chairman and the feveral members, and from the fole confideration of his literature, was, without application and without his knowledge, chofen their Latin fecretary. This could not but prove galling to a junto of men fo earneftly fet on his deftruction. They have accordingly had recourfe to their ufual artifices, not only to procure feats in it, but to obtain direction in certain departments of its management: And no doubt one of their objects is, to hunt the Latin fecretary out of this afylum.

In the fore-part of the book, we have given a full

full hiſtory of an attempt made by two phyſicians to baniſh our author from the practice; and we have placed their conduct in its proper light. But ſince that time, when the fame of his practice had, among other places, extended to a family, the maſter of which was labouring under a dangerous diſeaſe; and when the Doctor had been actually applied to, to conſult with the ordinary phyſician, who was a profeſſor, and therefore one in the catalogue of his enemies; this perſonage had the littleneſs of mind to go before the time deſtined for the meeting, and perſuade the family to countermand the appointment.

In order more effectually to ſubjugate the ſtudents to their intereſted purpoſes, by certain innuendos and ambiguous expreſſions, they gave birth to a report which ſpread through the body of the ſtudents, that thoſe of the ſtudents who had become converts to the new doctrine, and indeed every perſon indiſcriminately who heard it, would be ſeverely handled on their trials. This operated powerfully upon the minds of many who had never ſubſcribed to the new doctrine, as well as upon ſome friends to it, whoſe relations inſiſted upon their taking their degree at Edinburgh. At firſt it had its effect in diminiſhing the numbers of our author's hearers. But it is difficult, when truth and honeſty are once given up, to inſure the advantages which, ſooner or

later

later, naturally flow from the known practice of them. Detection is almost always the certain result of the multiplied modes in which they are counterfeited. This illiberal report, which ought not to have originated from the cause we have mentioned, and which those whom it most concerned ought, for their own honour, to have suppressed, was, however, cherished by them, seeing it the most powerful engine by which they might accomplish their favourite project. Honesty, however, is the best policy; and truth is the brazen wall of defence to its possessor. They justified the report, by repeated partiality upon examinations; in admitting the most ignorant and illiterate to degrees, because they had been subservient to their purpose; and in rejecting those of a contrary description. Some years ago, they had passed three gentlemen who had befriended the new doctrine. Their plan then had not been laid so deep. They proceeded upon the supposition, that abusing, upon the public examination, the rival doctrine, as they considered it, the ignorance and prejudice of the bystanders would give it all in their favour. This rude attack was meant to knock the doctrine in the head. It answered not their expectation; and therefore had they recourse to the scheme which we last mentioned. But this was also soon perceived to be an overshooting the mark.

mark. The rejection of one candidate, who was, above all others, obnoxious to them, and the admission of several, whose only title to their favour was servility, adulation, and a pretended zeal in their cause, had the effect of opening the eyes of many who had no attachment to the opposite cause. The road to another university was pointed out. Some have already taken it; others are upon the eve of setting out: and there is every probability, that, for the future, it will not be a solitary one. This is not a prophecy; it is reasoning from the same cause, that has already occurred, to the same effect. The ports of an university are now shut to this place, which, not many years ago, in the course of one summer, opened, and received no less than sixteen candidates, disgusted with the same illiberal conduct which is now so justly complained of.

Let every student, who puts any value on a degree in a certain place, if he merits it himself, look about him, and survey his competitors; and then say whether they flatter his pride. Let him read the new doctrine, and compare it with the tenets of a certain university; and then boast of the honour he could derive from those who confer his degree. But to take their labours as they are, even with a momentary concession that they fulfil the end of the institution; did ever a certain place, that calls itself an University,

versity, send out an anatomist, a chemist, or an adept in the physiology or pathology? Is there not somewhere a medical corporation, such as that we speak of, where the teacher of the practice of physic has at all times given out, that none of his pupils ever understood any part of his doctrine? and even appeared to boast of it; as if incomprehensibility could be a matter of exultation to a teacher in science; or incapability to comprehend such materials, a cause of reproach to the hearers. Let the same candidate we have been speaking of attentively peruse the remarks in this work on Universities, and compare the result of all their labours with that of a few men, who made head against the whole collective mass of them; and, after making so deep and extensive a reflection, if the etiquette of society renders the distinction of Doctorship excusable, let him decide with himself, whether he ought to value himself for his title, or his title for himself.

If what we have said in the last pages should to any one appear an approach to personality, I answer, that he is mistaken. Every thing that has been said in these pages is inseparably connected with the subject, and even more illustrative of it than several other parts. We have taken notice of a body of men, the original intention of whose institution was, *first*, before they entered

upon their ſeveral departments of teaching, that they ſhould be poſſeſſed of abilities adequate to the charge intruſted to them. 2*dly*, To exert theſe abilities to the utmoſt in the performance of their duty. 3*dly*, To encourage and ſupport by their intereſt, influence, and authority, every effort towards improving any branch whatever: and, if ſuch improvement ſhould happen to be ſubverſive of any thing that might formerly have been taught, not to fret at the diſcovery of a new truth proving the detection of an old error; but recollect from Lord Bacon, that "there is "a great difference betwixt new light and new "commotions." We have demonſtrated, that they have acted diametrically oppoſite to every part of their duty according to the deſcription juſt now given of it. And their only reaſon for all this unwarrantable conduct was to maintain their own doctrines and ſyſtems, ſuch as the reader now knows them to be; and to ſuppreſs a diſcovery of that magnitude and importance which we need not now repeat, and to purſue its author to deſtruction. We have not talked of any of this gentleman's adverſaries as individuals. We have ſaid nothing about their religion or morality. Nobody will learn from our detail, whether they be men of polite manners, or the contrary. We have not even meddled with a topic which obtruded itſelf upon us, the conſideration of their eſtimation

eſtimation of money. All our obſervations apply to them as a body. And with reſpect to him, to whom they make ſo united an oppoſition, none of the ſame particulars, as relating to him, have been taken notice of; though every thing of that nature would have been much in his favour, and made a contraſt by no means favourable to his enemies. We have ſtuck to our ſubject, and oppoſed him, *with his truth*, and the adherents which by that *alone* he has gained to his ſide, as a body alſo, not to them only in the ſame capacity, but to a world of ignorant, prejudiced, waſpiſh, and intereſted men. And, as we have formerly ſaid, ſuch is the weight truth adds to his ſcale, that, ere long, there is not the leaſt poſſibility that it will not preponderate.

While we have thus kept to the proper idea of our ſubject, and avoided perſonality; as there is one who has thought proper to ſtand forth a champion in the oppoſite cauſe, and thrown the gauntlet; we hope our readers, as men of honour, will allow us to think that our honour alſo is engaged to accept of the challenge. Hoping, therefore, that we have obtained their permiſſion, we now proceed to make them acquainted with the particulars that have provoked this ſingle combat. A worthy gentleman, and friend of mine, of whom we have more than once made reſpectful mention, and who has performed many

excellent cures upon the principles of the new doctrine, which he heartily embraces, after having, like many others, been, for reasons already assigned, its inveterate enemy, had first been fully resolved to take his degree from a neighbouring university. But, upon communicating the matter to his friends, in duty to them, he desisted from his intention. Rendered obnoxious to them by his avowed attachment to the new doctrine, he had consequently no other alternative, but either to recant, or fight his way through their several examinations. He chose the latter, and carried his point. And now the only question with them was, in what form to let his printed dissertation pass to the public. He had composed it according to the idiom of the new doctrine. That was a piece of conduct by no means delectable to them. But their policy here was very fine. Since they could not get the author to renounce the whole body of his work, that it might be the less striking to the readers, that a portion of the Brunonian doctrine had been admitted, they made it a point, that every thing which would tend to render this fact more glaring should be kept out of the thesis. Therefore quotations from the *Elementa Medicinæ* were peremptorily forbidden. The author made a struggle for *one*, which was the 69th, 70th, and 71st paragraphs. The application was in the following words:

 SIR,

"Sir,

"A former experience of your civility prevents my apologising for troubling you on the following occasion; viz.

"From a strict perusal and attention to my Dissertation, I find it necessary to solicit your approbation of inserting the quotation I made from Dr Brown's printed book, to which you formerly objected.

"Amongst many other reasons, I will submit the two following to your consideration.

"1*st*, That without it I am prevented from saying what *I really believe*, to the manifest injury of my Dissertation.

"2*dly*, That I am deprived of the liberty other candidates have always enjoyed, in making quotations from any author: A privilege, too, which was *promised me by Dr Gregory*.

"As I wish to have my Dissertation printed immediately, your answer, as soon as convenient, would oblige your humble servant,

J. Wainman.

The answer was as follows:

"Sir,

"I objected to your quotation, as I have often done to quotations made by other candidates; not that it contained the opinion of *this Doctor*, or of *that Professor*; but that it contained such jargon, as could not fail to dis-

"grace

"grace the candidate, and of course the Uni-
"versity which gave sanction to its publication.
"As to the liberty you say 'candidates have al-
"ways enjoyed of making quotations from any
"author, right or wrong,' I never heard of it
"before; and *am determined* to give it *no quarter*
"neither now nor hereafter. I am,

SIR,

EDINR. May 27. 1781. Your most obed[t]. servant,
ALEX[R]. MONRO.

Here the reader will probably acknowledge with me, that this was a very strange answer to be sent to so reasonable and modest a request. It gives, however, a very good illustration of what has been said before upon the conduct of the whole junto. Which, viewed in all lights, and scrutinized to the bottom, will be found to have one uniform, invariable object; and that is, without reasoning, without pretending even to colour their shameless proceedings, in defiance of all decorum, and the common sense of mankind, and, by downright outrage, to carry their point of quashing this doctrine. This dissertation wants the completeness that the author would have given it on many accounts. For though what has been allowed of it to make its appearance in public, is in strict conformity to the fundamental view of the doctrine from which it was taken; yet it could easily be perceived, that se-

 veral

veral parts required to be filled up, others to be polished, others to be a little retrenched, and the arrangement of the whole to be better adjusted. It would also have been further in his favour, to have confirmed his doctrine by such views of the subject as might be found in a different form, and more complete state, either in the original work, or in other essays; and which it might have been inconsistent with his plan to transfer into the body of his work. All this would have thrown a light upon the subject, which it was impossible, *even for professors*, not to penetrate. But that was the very reason, for which he was not allowed to give such finishing to his performance. The doctrine which he had adopted was meant to be extirpated; and therefore it was to be stripped of every comely feature, that could recommend it to the favour of the public. In a word, our author, like many other candidates, had given in his performance in a very unfinished state; and he only meant it as a *prima cura*, intending, as is usually permitted, to give it more completeness before it went to the press. The less complete, the better for their purpose; and therefore a point was made, that it should go as it was. Of this the reader must be convinced, when he sees, from the direct proof before him, that a single quotation could not be permitted, and that contrary to their public faith *pledged by their Dean*.

After

After laying the plain ſtate of the fact before our reader, let us examine this mighty profeſſor's reaſons for rejecting the quotation in queſtion. It is a very ſimple one, viz. becauſe "it contained ſuch *jargon*, as could not fail to *diſgrace* "the candidate, and of courſe the *univerſity* "which gave ſanction to its publication." It is difficult to ſay, whether this gentleman's words or his meaning moſt want a little ſmoothing and poliſhing. Refinement in language and ſentiment ſeems not to claim any conſpicuous place among his accompliſhments. The journeymen bakers and brewers in this city are a worthy and uſeful part of the community. But, though they are not diſtinguiſhed for politeneſs, it is likely that they would expreſs themſelves, upon any ſubject within the ſphere of their knowledge, in a manner greatly ſuperior to that we have before us. And, with reſpect to delicacy and juſtneſs of ſentiment, we believe, nobody who knows the characters here oppoſed to each other, would heſitate long in determining to which he ſhould give the preference. The books from a father and his ſon, concerning the firſt diſcovery of the lymphatic ſyſtem, which gave birth to another from the very ingenious Dr William Hunter, and which laſt was never anſwered; though they are therefore read by nobody at preſent; theſe, as well as the ſtyle in which they were written, are ſtill freſh in the memories of moſt

people.

people. And his unanſwerable book, after not anſwering and therefore being underſtood by the public to have relinquiſhed his pretended diſcovery to his rival, the conſtant vehemence of language in his claſs, ſtill upon the ſame ſubject, only equalled by the impotence and unſeaſonableneſs of his arguments, are known to thouſands. The controverſial ſpirit, which diſtinguiſhes him in his lectures, has ever excited him to the ſame ſpecies of rhetoric againſt the greateſt names which come in his way, through the whole extent of the miſcellaneous ſubjects which he touches upon in his courſe. Theſe are ſo many inſtances of there being nothing *extraordinary* to him, in the *extraordinary* ſtyle which he has made uſe of in the letter before us. And the little conviction, that ever aroſe from his controverſial diſcuſſions before his pupils, is an equal proof of his powers in reaſoning. If harſh language, and not exclamation, be the characteriſtics of true philoſophy, this gentleman is the greateſt philoſopher upon earth. So much for his manner and ſentiment.

Now, next, to uſe his own predominant expreſſion: After paſſing ſo harſh a ſentence upon the poor baniſhed quotation, could it be deemed unfair to demand his reaſon for ſo blunt and porter-like an aſſertion? He ſhould remember, that he is not here acting as a ſecret politician, and performing his part in a plot. He has made an

an attack as a foe, and avowed it by subscription. It was therefore expected, that he should appear with all his offensive armour about him. But where are his arms? Where is his shield, and the other defensive weapons? He has none. His whole enterprise amounts to this: Drawcansir-like, *I stand here, and I say so;* and "*I will give* "*no quarter either here or hereafter!*" Could it be possible, that this pugnable gentleman proceeded on any comparison of himself with David against Goliah?

To drop the metaphor, we call upon this gentleman for his reason. Did he ever read what is published of this new doctrine? Did he ever make a proper inquiry into that which is not published, and upon which the subject of this dissertation was founded? Are there not a set of men whom he and we know, who have openly declared that they could not read the book? Whether that be to their honour or not, let the reader decide. But in the mean time, if this gentleman, and those others, confess themselves *grossly* ignorant of this doctrine, upon what principle can they be warranted for forming any judgement of the whole, or any part, of any kind? With respect to the little portion of it in question, there is not an old woman, who ever had moderate parts as a woman, and these not much decayed, to whom it cannot be made as plain as the simplest proposition. This work, in all

its

its parts, without exception, was never perused or explained to any person, often of the most ordinary intellect, without being fully understood, and producing assent and conviction. Yet, while that is undeniably the true state of the case, and the doctrine the most simple, and perspicuous, and comprehensible of any, good or bad, that ever has appeared; I have had another letter put into my hands, in which it is called "The late book of Medical Revelations *". This letter is subscribed, A. MONRO.

Edinburgh, May, 22d, 1781.

* *Revelations* is an expression among the vulgar for *revelation*. But that is a piece of inaccuracy in language, excusable in our author; as elegance of style, and literary accomplishment, occupy not his attention, and gentleness and refinement of expression would not answer the purposes to which he is destined in the province assigned him. If this doctrine were an apocalypsis, how is it to be explained; that no person ever came to hear it without prejudice, and even ill-will, to the author; and that none ever heard a few lectures without conviction, and proving such affectionate pupils as no teacher of medicine in Europe at this day can boast of? We forbear to give the catalogue; for we do not choose to exert our full strength: we choose to stop in the middle of our course.

FINIS.